Manufacturers Data Report

ADSN000XXXXX

MDR

-XXXXXXXXXX-

Manufacturers Data Report

Customer	XXXXXXX
PO Number	XXXXX
Aflex Job Number	XXXXX
Aflex Batch Number	XX
Aflex Item Number	XX
Serial Number	ADSN000XXXXX
Release ID	XXXX
Release Date	XX/XX/26
Item Description	02 - 2 x 350NB TEB
Report Generated	XX/XX/26 07:52 AM



Photo is indicative only and may be of another item in the same batch

MDR

-XXXXXXXXXX-

Table of Contents

Assembly Data Sheet 4

Aflex Master Drawing XXXXXX R0 5

Welding Information 6

Weld Map 6

Weld W-01 7

Weld W-21 8

Materials Information 9

Materials Map 9

Material Certificate 132931 (Page 1 of 1) 10

Material Certificate 133505 (Page 1 of 5) 11

Material Certificate 133505 (Page 2 of 5) 12

Material Certificate 133505 (Page 3 of 5) 13

Material Certificate 133505 (Page 4 of 5) 14

Material Certificate 133505 (Page 5 of 5) 15

Material Certificate 133762 (Page 1 of 1) 16

Material Certificate 120200 (Page 1 of 1) 17

Material Certificate 134136 (Page 1 of 1) 18

Material Certificate 133587 (Page 1 of 1) 19

Material Certificate 133959 (Page 1 of 1) 20

Material Certificate 123685 (Page 1 of 1) 21

Testing and Quality Checks 22

Final Release Check 22

ISO 9001 Certification 23

MDR

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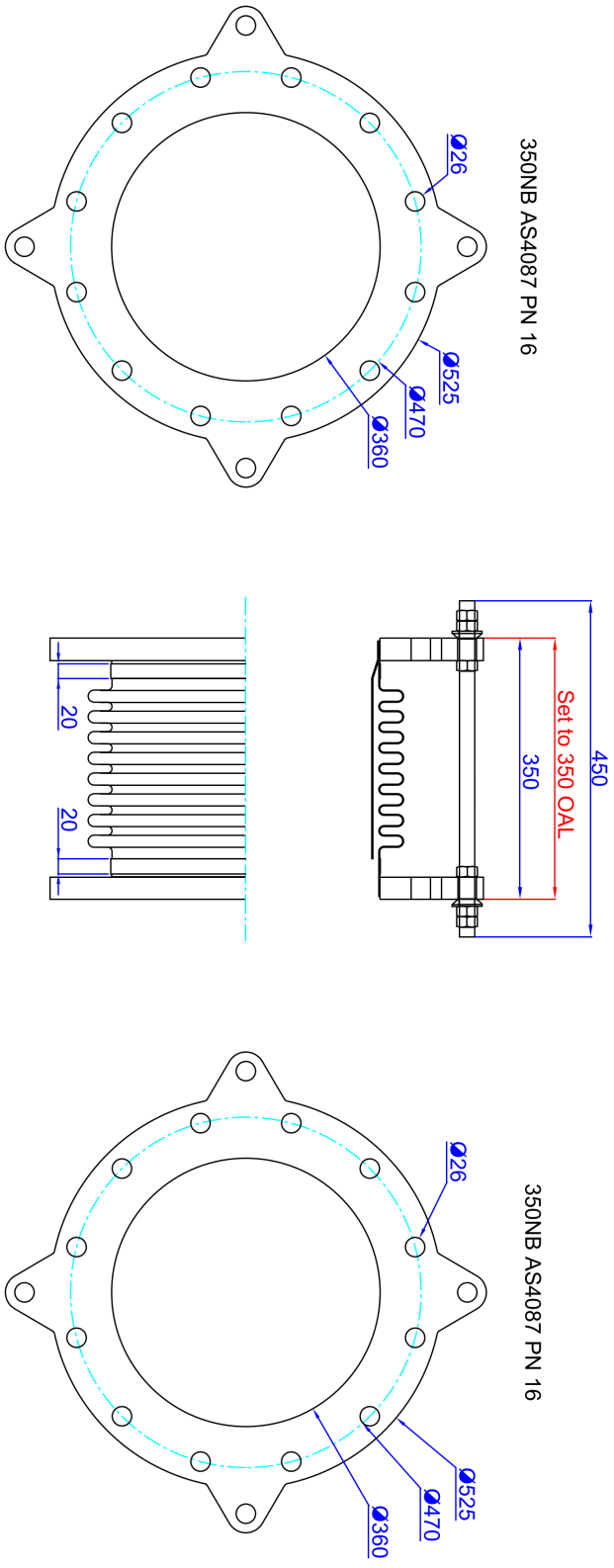
Assembly Data Sheet

Customer / Distributor	**XXXXXXXX**
Aflex Job Number	XXXXXXX
Assembly Description	350NB TEB-FF-1250-L 350 mm
Assembly Type	Tied Expansion Bellows
Finish	Electropolished - TIG Brush
Inlet Connection	**Flange - 316/316L AS4087 PN 16_**
Nominal Bore	350NB
Outside Diameter	525
Thickness	30
No. Bolt Holes	12
Bolt Hole Dia.	26
Pitch Circle Diameter	470
Outlet Connection	**Flange - 316/316L AS4087 PN 16_**
Nominal Bore	350NB
Outside Diameter	525
Thickness	30
No. Bolt Holes	12
Bolt Hole Dia.	26
Pitch Circle Diameter	470
Bellows	
Reference	6168
Material	316/316L
Material Thickness	1.2 mm
Design Code	EJMA 10th Edition
Liner	316/316L 1.5 mm thk
Overall Assembly Length (OAL)	350 mm
Working Pressure	1250 kPa
Design Pressure	1250 kPa
Bellows Plies	1
Design Temperature	50 Deg. C.
Rated Axial Compression	-25 mm
Rated Axial Extension	0 mm
Rated Lateral Offset	5 mm
Rated Angular Deflection	0 Deg.

This table must be read in conjunction with the attached assembly drawing which comprises part of this data sheet

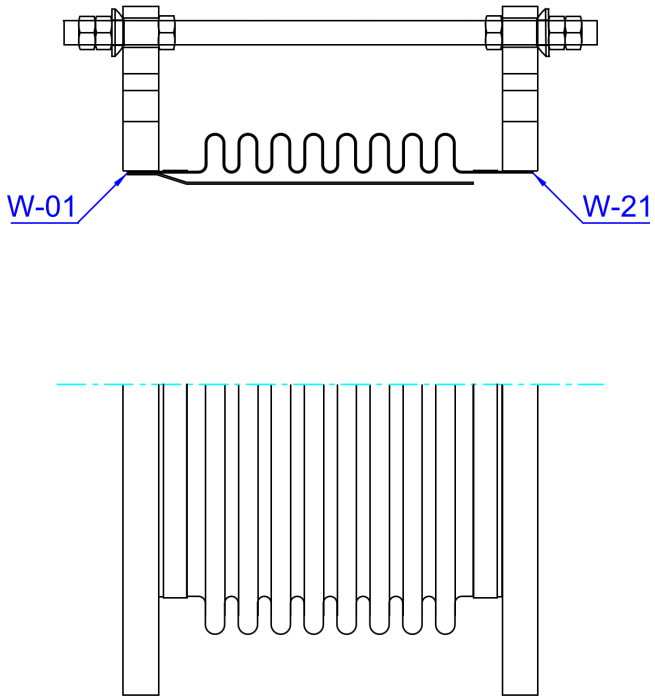
Aflex Master Drawing XXXXXXX R0



Tolerances: ±3mm for OAL and external hardware dimensions, flange and pipe tolerances are to the relevant standards

Welding Information

Weld Map



Drawing not to Scale

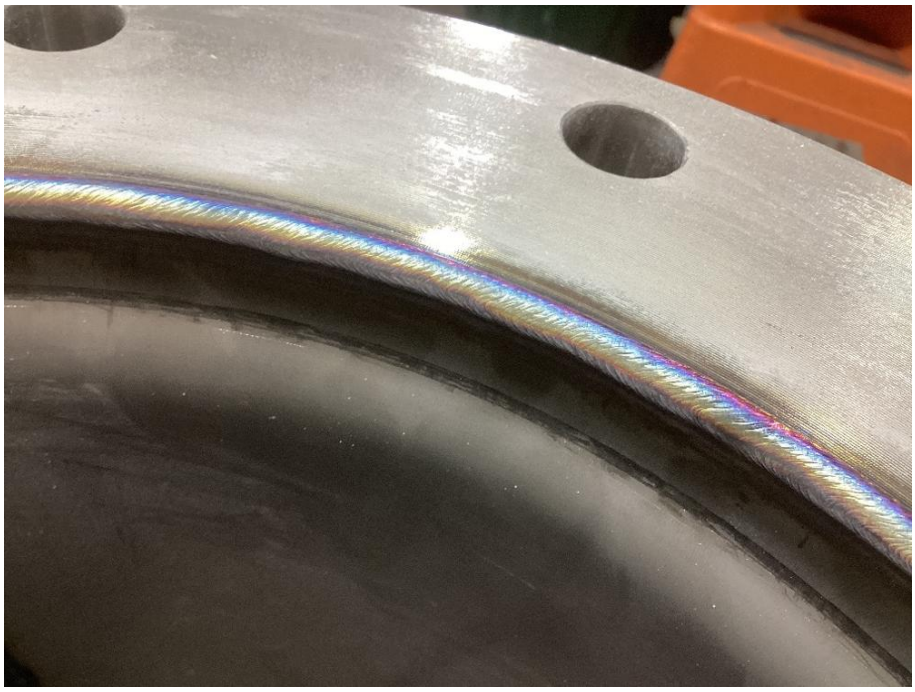
Identifer	Weld Description	Procedure	Process
W-01	Bellows to inlet flange	TIG Group K / Group K (Bellows...	GTAW
W-21	Bellows Outlet to Flange	TIG Group K / Group K (Bellows...	GTAW

Weld W-01

Weld ID	WPS Name	Operator	Welder	Date
559474	TIG Group K / Group K...	CK	Kemppi TIG325...	06/07/26

Amps	Filler Material	Filler Size	Shielding Gas	Gas Flow
108 - 124	316/316L	1.6	100% Argon	12.0

Filler PI ID	Purchase Item Description	Heat Number	Cert Doc ID
120299	Welding Consumable - 5kg pack 1.6mm 316/316L	V19249	123685



Note: Weld photo is indicative only and may be of another item in the same batch.

Links to Supporting Documents

Weld Procedure Specification (WPS) / Weld Procedure Qualification Record

Welder Performance Qualification Records

NDT Results

Check ID	Description	Technician	Date Performed	Result
485955	Aflex 100% Through Dye Pen.	CK	06/07/26 03:38 PM	PASS

Weld W-21

Weld ID	WPS Name	Operator	Welder	Date
559476	TIG Group K / Group K...	CK	Kemppi TIG325...	06/07/26

Amps	Filler Material	Filler Size	Shielding Gas	Gas Flow
108 - 124		0.0	100% Argon	12.0



Note: Weld photo is indicative only and may be of another item in the same batch.

Links to Supporting Documents

Weld Procedure Specification (WPS) / Weld Procedure Qualification Record

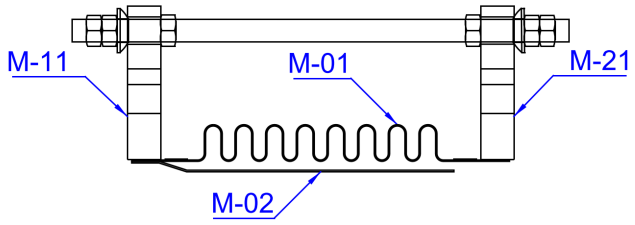
Welder Performance Qualification Records

NDT Results

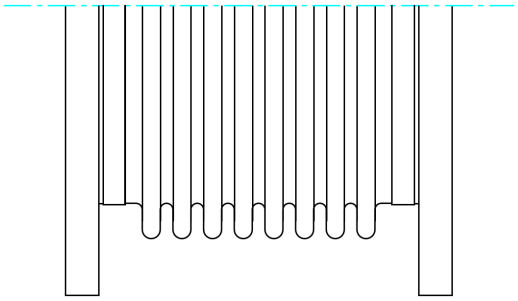
Check ID	Description	Technician	Date Performed	Result
485957	Aflex 100% Through Dye Pen.	CK	06/07/26 03:38 PM	PASS

Materials Information

Materials Map



M-03 - 316SS M20 Nuts
M-04 - 316SS Spherical Washers
M-05 - 316SS M20 Rod
M-06 - 1.2mm 316SS Bands 1133 Circ



Drawing not to Scale

Materials Records

Identifier	Material Name	M-ID	Heat Number	Cert Doc ID
2	Sheet - 1220 x 2440 1.5mm 316/316L	123547	115030018	133505
3	Fastener - M20 Nut 316/316L	123559	DY240821AN02	133762
4	Fastener - 20mm washer 316/316L	119965	NY250206AS14	120200
5	Threaded Bar - M20 316/316L	123496	NY251126AW04	134136
6	Plate - 1.2mm 316/316L (None)	123528	Y250901C01C-	133587
11	Plate - 32.0mm 316/316L (38)	123522	25E77110	133959
21	Plate - 32.0mm 316/316L (38)	123522	25E77110	133959

Bellows Records

Identifier	Material Name	M-ID	Heat Number	Cert Doc ID
1	Sheet - 1220 x 2440 1.2mm 316/316L	122506	AYH070068	132931

Where applicable, Material Certificates can be found on the following pages...

Certificate No.	F251013003
Date:	OCT 07,2025

檢 驗 證 明 書
MILL'S TEST CERTIFICATE

彰源企業股份有限公司
FROCH ENTERPRISE CO., LTD.
NO.122 INDUSTRIAL ROAD, TOU-LIU CITY
YUN-LIN 640, TAIWAN
TEL:+886-5-5571669 FAX:+886-5-5571339
Website: www.froch.com

Customer : VULCAN STEEL PTY. LTD.			
Invoice No.	Contract No.	L / C No.	規 範 Specification
FEX20251251	90580+90581+90582	T/T	ASTM A240-2023a/A480-2023b

產品名稱 Description	項 目 Item No.	產 品 尺 寸 Size	鋼 種 Type	爐 號 Heat No.	數 量 QTY(PC)	重 量 Weight(MT)	熱處理 (℃) Heat Treatment Water Quenched	表面處理 Finish	備註 Remark
STAINLESS STEEL COLD ROLLED SHEET.	8	1.2MMX1220X2440MM 2B PI	316L	AYH070068	35.000	.988	---	2B	
ASTM A240-2023A/A480-2023B. 304, 316L.	9	1.5MMX1220X2440MM 2B PI	316L	AYM070271	26.000	.925	---	2B	
2B FINISH COATED ONE LAYER FLPE ON	10	1.5MMX1500X3000MM 2B PI	316L	AYM070262	20.000	1.038	---	2B	
MAIN SIDE, WITH PAPER INTERLEAVED.	11	2.0MMX1220X2440MM 2B FLPE	316L	AYJ070431	21.000	.994	---	2B	
SLIT EDGE. PRIME QUALITY.	12	2.0MMX1220X2440MM 2B PI	316L	AYJ070432	20.000	.942	---	2B	
FOR GENERAL APPLICATION.	13	2.0MMX1500X4000MM 2B FLPE	316L	AYS070066	10.000	.951	---	2B	
	14	3.0MMX1220X2440MM 2B PI	316L	AYN070394	90.000	6.355	---	2B	

化 學 成 份 Chemical Composition (%)

項 目 Item No.	碳 C	矽 Si	錳 Mn	磷 P	硫 S	鉻 Cr	鎳 Ni	鉬 Mo	氮 N	其他
Min.						16.00	10.00	2.00		
Max.	0.030	0.750	2.00	0.045	0.030	18.00	14.00	3.00	0.100	
8	0.019	0.330	1.36	0.026	0.001	16.63	10.02	2.02	0.037	---
9	0.017	0.280	1.40	0.031	0.005	16.72	10.04	2.07	0.029	---
10	0.022	0.260	1.36	0.035	0.001	16.79	10.05	2.03	0.034	---
11	0.021	0.310	1.38	0.028	0.001	16.70	10.05	2.01	0.033	---
12	0.026	0.300	1.36	0.031	0.001	16.60	10.01	2.03	0.033	---
13	0.022	0.360	1.31	0.027	0.002	16.80	10.02	2.02	0.040	---
14	0.018	0.340	1.39	0.034	0.001	16.84	10.04	2.03	0.030	---

機 械 試 驗 Mechanical Test

抗拉強度 Tensile (N/mm^2)	降伏強度 0.2% Yield (N/mm^2)	伸長率 % Elongation	Direction	Width of specimen	Gauge Length	硬度試驗 Hardness HRB
485	170	40	L.T	mm	mm	
						95.00
643	331	45	---	---	---	81.00
634	325	47	---	---	---	80.00
677	351	44	---	---	---	84.00
655	344	45	---	---	---	85.00
655	350	46	---	---	---	85.00
633	304	50	---	---	---	82.00
615	348	49	---	---	---	85.00

NOTES:
1.The material described herein is certified for no radiation contamination by original Material Manufacturer.
2.The tolerance of chemical composition is according to ASTM A480
3.Visual Inspection(Surface) and Dimension Check: Acceptable
4.We hereby certify that material described herein has been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification.

*HARDNESS TO NACE MR0175

APPROVED CERTIFICATES:
1.QMS according ISO 9001(TUV Cert No:01 100 126922)
2.EMS according ISO 14001(LRQA Cert No:0069466)
3.PED (TUV Cert No: 01 202 TWN/Q-06 0145)

Lai Yu Lin
QA Manager / Work Inspector.

Q-Y-Q-33-07-C

Material Certificate 132931 (Page 1 of 1)

MDR -XXXXXXXXX-

Material Certificate 133505 (Page 1 of 5)

裕笙工業股份有限公司
YUE SENG INDUSTRIAL CO., LTD.
ISO 9001、ISO14001、OHSAS18001

INSPECTION CERTIFICATE
EN 10204-3.1 2005

NO. 12, LU KUNG NORTH 1ST ROAD,
LU-KANG TOWN CHANG HUA HSIEN,
TAIWAN

CUSTOMER : SANWA PTY LTD
INVOICE NO.: YS-03252026-3
PO NO.: SICO-2602015
DESCRIPTION : COLD ROLLED STAINLESS STEEL SHEETS AS PER SANWA ORDER 68413

CERTIFICATE NO.: YS-115-0086-1
STEEL GRADE : SUS 304
SPECIFICATION : ASTM A240/480
DATE: 25 MAR, 2026

P/L NO.	HEAT NO.	PRODUCTION DESCRIPTION				CHEMICAL COMPOSITION (%)										TENSION TEST			HARDNESS TEST		REFERENCE NO.
		SIZE	QTY (PCS)	N.W. (KGS)	FINISH	C	Si	Mn	P	S	Ni	Cr	N	Cu	Mo	Y.S. (0.2%) N/mm²	T.S. N/mm²	EL %	HRB	HV	C/NO.
SPECIFICATION					Min						8.00	17.50				205	515	40			
					Max	0.070	0.750	2.000	0.045	0.030	10.50	19.50							92	200	
1	115030303	1.20MM X 1500MM X 4000MM	10	555	304-NO.4/FL-PE	0.026	0.390	1.390	0.027	0.002	8.000	18.140	0.069	0.030	0.010	311	687	53	-	173	VSSAU11502A-01A
2	115030023	1.50MM X 1500MM X 4000MM	10	707	304-2B/FL-PE	0.025	0.350	1.390	0.025	0.002	8.020	18.050	0.052	0.030	0.010	322	695	50	-	181	VSSAU11502A-02A
3	115030456	1.50MM X 1500MM X 4000MM	16	1121	304-NO.4/FL-PE	0.024	0.350	1.360	0.027	0.002	8.030	18.120	0.071	0.030	0.010	305	674	53	-	176	VSSAU11502A-03A
4	115030456	1.50MM X 1500MM X 4000MM	16	1122	304-NO.4/FL-PE	0.024	0.350	1.360	0.027	0.002	8.030	18.120	0.071	0.030	0.010	305	674	53	-	176	VSSAU11502A-04A
7	115020344	2.50MM X 1219MM X 2438MM	15	878	304-2B/FL-PE	0.026	0.420	1.340	0.032	0.001	8.040	18.220	0.070	0.030	0.010	312	667	54	87.0	-	VSSAU11502A-07A
8	115030168	2.50MM X 1500MM X 4000MM	10	1141	304-2B/FL-PE	0.025	0.480	1.380	0.026	0.002	8.020	18.100	0.065	0.030	0.010	303	666	51	87.0	179	VSSAU11502A-08A
9	115030369	3.00MM X 1500MM X 4000MM	7	990	304-2B/FL-PE	0.025	0.390	1.230	0.032	0.002	8.010	18.130	0.065	0.020	0.010	305	659	54	85.5	-	VSSAU11502A-09A
11	115030188	0.90MM X 1219MM X 3048MM	40	1047	304-2B/FL-PE	0.016	0.430	1.410	0.034	0.002	8.020	18.090	0.068	0.030	0.010	308	666	54	84.0	166	VSSAU11502A-11A
12	115020304	1.20MM X 1219MM X 2438MM	37	1007	304-2B/PAPER	0.022	0.380	1.370	0.027	0.001	8.020	18.180	0.067	0.030	0.020	273	678	53	-	174	VSSAU11502A-12A
13	115020303	1.20MM X 1219MM X 2438MM	37	1014	304-2B/FL-PE	0.022	0.380	1.370	0.027	0.001	8.020	18.180	0.067	0.030	0.020	273	678	53	-	174	VSSAU11502A-13A

附註 Remark: 1.We hereby certify that the products described herein have been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification.
2. The material described above has been detected with free irradiation.
3. Visual inspection (surface) and dimension check : OK

Q.C. MANAGER
Y. C. Lee

Material Certificate 133505 (Page 2 of 5)

裕笙工業股份有限公司
YUE SENG INDUSTRIAL CO., LTD.
ISO 9001、ISO14001、OHSAS18001

INSPECTION CERTIFICATE
EN 10204-3.1 2005

NO. 12, LU KUNG NORTH 1ST ROAD,
LU-KANG TOWN CHANG HUA HSIEN,
TAIWAN

CUSTOMER : SANWA PTY LTD
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PO NO.: SICO-2602015
DESCRIPTION : COLD ROLLED STAINLESS STEEL SHEETS AS PER SANWA ORDER 68413

CERTIFICATE NO.: YS-115-0086-1
STEEL GRADE : SUS 304
SPECIFICATION : ASTM A240/480
DATE: 25 MAR, 2026

P/L NO.	HEAT NO.	PRODUCTION DESCRIPTION				CHEMICAL COMPOSITION (%)										TENSION TEST			HARDNESS TEST		REFERENCE NO.
		SIZE	QTY (PCS)	N.W. (KGS)	FINISH	C	Si	Mn	P	S	Ni	Cr	N	Cu	Mo	Y.S. (0.2%) N/mm²	T.S. N/mm²	EL %	HRB	HV	C/NO.
SPECIFICATION					Min						8.00	17.50				205	515	40			
					Max	0.070	0.750	2.000	0.045	0.030	10.50	19.50							92	200	
14	115030171	1.20MM X 1219MM X 2438MM	60	1605	304-NO.4/FL-PE	0.021	0.360	1.370	0.026	0.002	8.020	18.200	0.072	0.040	0.020	340	682	51	-	182	VSSAU11502A-14A
15	115030171	1.20MM X 1219MM X 2438MM	60	1609	304-NO.4/FL-PE	0.021	0.360	1.370	0.026	0.002	8.020	18.200	0.072	0.040	0.020	340	682	51	-	182	VSSAU11502A-15A
16	115030170	1.20MM X 1219MM X 3048MM	30	1004	304-NO.4/FL-PE	0.021	0.360	1.370	0.026	0.002	8.020	18.200	0.072	0.040	0.020	340	682	51	-	182	VSSAU11502A-16A
17	115030170	1.20MM X 1219MM X 4000MM	43	1898	304-NO.4/FL-PE	0.027	0.400	1.400	0.031	0.001	8.030	18.080	0.066	0.030	0.010	319	683	52	-	183	VSSAU11502A-17A
18	115030303	1.20MM X 1500MM X 3000MM	23	949	304-NO.4/FL-PE	0.026	0.390	1.390	0.027	0.002	8.000	18.140	0.069	0.030	0.010	311	687	53	-	173	VSSAU11502A-18A
19	115030303	1.20MM X 1500MM X 4000MM	34	1882	304-NO.4/FL-PE	0.026	0.390	1.390	0.027	0.002	8.000	18.140	0.069	0.030	0.010	311	687	53	-	173	VSSAU11502A-19A
26	115030070	2.00MM X 1500MM X 3000MM	13	916	304-2B/FL-PE	0.026	0.430	0.710	0.037	0.004	8.080	18.290	0.039	0.450	0.200	273	629	54	82.0	159	VSSAU11502A-26A
27	115030161	2.00MM X 1219MM X 2438MM	21	953	304-NO.4/FL-PE	0.024	0.370	1.370	0.026	0.002	8.020	18.140	0.066	0.030	0.010	258	644	55	81.0	-	VSSAU11502A-27A
28	115030182	3.00MM X 1500MM X 3000MM	18	1870	304-2B/PAPER	0.024	0.390	1.380	0.026	0.003	8.010	18.120	0.065	0.030	0.010	309	659	52	87.0	179	VSSAU11502A-28A
29	115030254	3.00MM X 1500MM X 3000MM	10	1055	304-2B/FL-PE	0.025	0.420	1.390	0.025	0.004	8.030	18.400	0.069	0.030	0.010	282	643	54	85.0	171	VSSAU11502A-29A

附註 Remark: 1.We hereby certify that the products described herein have been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification.
2. The material described above has been detected with free irradiation.
3. Visual inspection (surface) and dimension check : OK

Q.C. MANAGER
Y.C.Lee

Material Certificate 133505 (Page 3 of 5)

裕笙工業股份有限公司
YUE SENG INDUSTRIAL CO., LTD.
ISO 9001、ISO14001、OHSAS18001

INSPECTION CERTIFICATE
EN 10204-3.1 2005

NO. 12, LU KUNG NORTH 1ST ROAD,
LU-KANG TOWN CHANG HUA HSIEN,
TAIWAN

CUSTOMER : SANWA PTY LTD
INVOICE NO.: YS-03252026-3
PO NO.: SICO-2602015
DESCRIPTION : COLD ROLLED STAINLESS STEEL SHEETS AS PER SANWA ORDER 68413

CERTIFICATE NO.: YS-115-0086-1
STEEL GRADE : SUS 304
SPECIFICATION : ASTM A240/480
DATE: 25 MAR, 2026

P/L NO.	HEAT NO.	PRODUCTION DESCRIPTION				CHEMICAL COMPOSITION (%)										TENSION TEST			HARDNESS TEST		REFERENCE NO.
		SIZE	QTY (PCS)	N.W. (KGS)	FINISH	C	Si	Mn	P	S	Ni	Cr	N	Cu	Mo	Y.S. (0.2%) N/mm²	T.S. N/mm²	EL %	HRB	HV	C/NO.
SPECIFICATION						Min					8.00	17.50				205	515	40			
						Max	0.070	0.750	2.000	0.045	0.030	10.50	19.50							92	200	
32	115030171	1.20MM X 1219MM X 2438MM	38	1012	304-NO.4/FL-PE	0.021	0.360	1.370	0.026	0.002	8.020	18.200	0.072	0.040	0.020	340	682	51	-	182	VSSAU11502A-32A
33	115030034	2.00MM X 1219MM X 2438MM	12	558	304-2B/PAPER	0.025	0.380	1.410	0.028	0.001	8.010	18.180	0.067	0.030	0.010	299	655	57	85.0	171	VSSAU11502A-33A
33	115020143	2.00MM X 1219MM X 2438MM	10	465	304-2B/PAPER	0.025	0.390	1.370	0.025	0.002	8.020	18.060	0.068	0.030	0.010	300	654	55	86.0	175	VSSAU11502A-33A
34	115030070	2.00MM X 1500MM X 3000MM	13	917	304-2B/PAPER	0.026	0.430	0.710	0.037	0.004	8.080	18.290	0.039	0.450	0.200	273	629	54	82.0	159	VSSAU11502A-34A
35	115030368	3.00MM X 1500MM X 3000MM	9	949	304-2B/PAPER	0.025	0.390	1.230	0.032	0.002	8.010	18.130	0.065	0.020	0.010	305	659	54	85.5	-	VSSAU11502A-35A
37	115030070	2.00MM X 1500MM X 3000MM	13	916	304-2B/FL-PE	0.026	0.430	0.710	0.037	0.004	8.080	18.290	0.039	0.450	0.200	273	629	54	82.0	159	VSSAU11502A-37A

附註 Remark: 1.We hereby certify that the products described herein have been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification.
2. The material described above has been detected with free irradiation.
3. Visual inspection (surface) and dimension check : OK

Q.C. MANAGER
Y.C.Lee

Material Certificate 133505 (Page 4 of 5)

裕笙工業股份有限公司
YUE SENG INDUSTRIAL CO., LTD.
ISO 9001、ISO14001、OHSAS18001

INSPECTION CERTIFICATE
EN 10204-3.1 2005

NO. 12, LU KUNG NORTH 1ST ROAD,
LU-KANG TOWN CHANG HUA HSIEN,
TAIWAN

CUSTOMER : SANWA PTY LTD
INVOICE NO.: YS-03252026-3
PO NO.: SICO-2602015
DESCRIPTION : COLD ROLLED STAINLESS STEEL SHEETS AS PER SANWA ORDER 68413

CERTIFICATE NO.: YS-115-0086-2
STEEL GRADE : SUS 316L
SPECIFICATION : ASTM A240/480
DATE: 25 MAR, 2026

P/L NO.	HEAT NO.	PRODUCTION DESCRIPTION				CHEMICAL COMPOSITION (%)										TENSION TEST			HARDNESS TEST		REFERENCE NO.
		SIZE	Q'TY (PCS)	N.W. (KGS)	FINISH	C	Si	Mn	P	S	Ni	Cr	N	Cu	Mo	Y.S. (0.2%) N/mm²	T.S. N/mm²	EL %	HRB	HV	C/NO.
SPECIFICATION						Min	0.030	0.750	2.000	0.045	0.030	10.00	16.00	0.100		2.000	170	485	40			
						Max						14.00	18.00			3.000				95	220	
5	115030104	2.00MM X 1500MM X 3000MM	15	1060	316L-2B/PAPER	0.020	0.310	1.330	0.032	0.002	10.010	16.900	0.040	0.040	2.020	329	654	46	82.0	-	VSSAU11502A-05A
6	115020358	2.00MM X 1219MM X 2438MM	11	511	316L-NO.4/FL-PE	0.026	0.310	1.350	0.027	0.001	10.000	16.700	0.039	0.050	2.020	347	664	45	86.0	-	VSSAU11502A-06A
10	115030227	3.00MM X 1500MM X 3000MM	10	1069	316L-2B/PAPER	0.023	0.450	1.360	0.030	0.001	10.060	16.800	0.040	0.050	2.010	293	602	55	81.0	156	VSSAU11502A-10A
20	115030046	1.20MM X 1219MM X 2438MM	34	940	316L-2B/PAPER	0.025	0.380	1.330	0.034	0.001	10.050	16.650	0.027	0.310	2.050	342	647	47	-	164	VSSAU11502A-20A
21	115030127	1.20MM X 1219MM X 2438MM	35	1005	316L-NO.4/FL-PE	0.026	0.430	1.410	0.025	0.002	10.060	16.800	0.037	0.050	2.030	278	609	54	77.0	146	VSSAU11502A-21A
22	115030018	1.50MM X 1219MM X 2438MM	28	973	316L-2B/PAPER	0.022	0.490	1.310	0.034	0.002	10.040	16.550	0.042	0.040	2.030	306	634	52	76.0	143	VSSAU11502A-22A
23	115020379	1.50MM X 1500MM X 3000MM	19	995	316L-2B/PAPER	0.022	0.260	1.360	0.035	0.002	10.050	16.790	0.034	0.050	2.030	295	628	52	-	149	VSSAU11502A-23A
24	115020379	1.50MM X 1500MM X 3000MM	19	998	316L-2B/FL-PE	0.022	0.260	1.360	0.035	0.002	10.050	16.790	0.034	0.050	2.030	295	628	52	-	149	VSSAU11502A-24A
25	115030107	1.50MM X 1500MM X 3000MM	19	998	316L-NO.4/FL-PE	0.024	0.290	1.360	0.030	0.001	10.020	16.740	0.035	0.050	2.020	328	663	45	-	166	VSSAU11502A-25A
30	115030225	3.00MM X 1500MM X 3000MM	14	1501	316L-2B/FL-PE	0.023	0.450	1.360	0.030	0.001	10.060	16.800	0.040	0.050	2.010	293	602	55	81.0	156	VSSAU11502A-30A

附註 Remark: 1.We hereby certify that the products described herein have been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification.
2. The material described above has been detected with free irradiation.
3. Visual inspection (surface) and dimension check : OK

Q.C. MANAGER
Y. C. Lee

Material Certificate 133505 (Page 5 of 5)

裕笙工業股份有限公司
YUE SENG INDUSTRIAL CO., LTD.
ISO 9001、ISO14001、OHSAS18001

INSPECTION CERTIFICATE
EN 10204-3.1 2005

NO. 12, LU KUNG NORTH 1ST ROAD,
LU-KANG TOWN CHANG HUA HSIEN,
TAIWAN

CUSTOMER : SANWA PTY LTD
INVOICE NO.: YS-03252026-3
PO NO.: SICO-2602015
DESCRIPTION : COLD ROLLED STAINLESS STEEL SHEETS AS PER SANWA ORDER 68413

CERTIFICATE NO.: YS-115-0086-2
STEEL GRADE : SUS 316L
SPECIFICATION : ASTM A240/480
DATE: 25 MAR, 2026

P/L NO.	HEAT NO.	PRODUCTION DESCRIPTION				CHEMICAL COMPOSITION (%)										TENSION TEST			HARDNESS TEST		REFERENCE NO.
		SIZE	Q'TY (PCS)	N.W. (KGS)	FINISH	C	Si	Mn	P	S	Ni	Cr	N	Cu	Mo	Y.S. (0.2%) N/mm²	T.S. N/mm²	EL %	HRB	HV	C/NO.
SPECIFICATION					Min						10.00	16.00			2.000	170	485	40			
					Max	0.030	0.750	2.000	0.045	0.030	14.00	18.00	0.100		3.000				95	220	
31	115030225	3.00MM X 1500MM X 3000MM	14	1501	316L-2B/FL-PE	0.023	0.450	1.360	0.030	0.001	10.060	16.800	0.040	0.050	2.010	293	602	55	81.0	156	VSSAU11502A-31A
36	115030099	3.00MM X 1219MM X 2438MM	14	968	316L-2B/PAPER	0.024	0.320	1.370	0.032	0.002	10.030	16.680	0.039	0.040	2.010	328	643	48	84.0	-	VSSAU11502A-36A
38	115030099	3.00MM X 1219MM X 2438MM	14	968	316L-2B/PAPER	0.024	0.320	1.370	0.032	0.002	10.030	16.680	0.039	0.040	2.010	328	643	48	84.0	-	VSSAU11502A-38A

附註 Remark: 1.We hereby certify that the products described herein have been manufactured and tested with satisfactory results in accordance with the requirement of the above material specification.
2. The material described above has been detected with free irradiation.
3. Visual inspection (surface) and dimension check : OK

Q.C. MANAGER

Y. C. Lee

MDR

-XXXXXXXXXX-

Material Certificate 133762 (Page 1 of 1)

Hobson Engineering Co.Pty.Ltd

CERTIFICATE OF INSPECTION

PURCHASER:	Hobson Engineering Co. Pty Ltd	CERT NO:	941675	Report Code:	
ADDRESS:	10 Clay Place Eastern Creek,	CUST P/N:	NH16PCM20	PO# NO:	107975_VM2
				ITEM NO:	276453
SIZE:	M20-2.5	MATERIAL TYPE:	A4(316)	HEAT NO:	DY240821AN02
MARKING:	A4-70 THE	COMMODITY:	DIN934-1987	LOT NO:	Z800889830002
MFR.DATE:	2024/10/22	Product Name:	Hex Nuts	Surface:	Passivated
Sampling Date:	2024/10/28	Test Date:	2024/10/28	Sample Plan spec:	ASME B18.18-2017

DIMENSIONAL INSPECTIONS (mm) SAMPLE STANDARD: DIN934-1987

CHARACTERISTICS	SPECIFICATION	ACTUAL RESULT	SAMPLE DETERMINANT
Width Across Flats	29.16 <---> 30	29.42 <---> 29.48	Qualified
Across Corner	32.95 min	33.44 <---> 33.52	Qualified
Thickness	14.9 <---> 16	15.01 <---> 15.09	Qualified
Minor Diameter	17.294 <---> 17.744	17.63 <---> 17.71	Qualified
Pitch Diameter(GO/NOGO)	18.376 <---> 18.6	PASSED	Qualified

MECHANICAL PROPERTIES SAMPLE STANDARD: ISO3506-2:2009

CHARACTERISTICS	SPECIFICATION	ACTUAL RESULT	SAMPLE DETERMINANT
Proof Load(N/mm^2)	700 min	PASSED	Qualified

CHEMICAL COMPOSITION%

Heat Number	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	N	SAMPLE DETERMINANT
DY240821AN02	0.017	0.35	0.97	0.036	0.002	10.06	16.38	2.06	0.32	0.035	Qualified

DIN(EN)10204 Inspection Certificate Type 3.1

Authorization Verification

Approved for and on behalf of Hobson Engineering Co.Pty.Ltd

INSPECTION RESULT:SAMPLES TESTED CONFORM TO ALL OF SPECIFICATION AS ABOVE THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL. WHENEVER TESTING DISCREPANCIES ARE DETECTED OR DEPARTURES FROM DOCUMENTED POLICIES AND PROCEDURE OCCUR,THEY WILL BE SHOWN IN REMARK.

1、HRC for Screw & Bolt with partial thread;HRB(S) for Nut、Thread rod and Bolt & Screw with full thread.

SHUNHAI KEHUA IMPORT & EXPORT CO., LTD

INSPECTION CERTIFICATE & MILL TEST REPORT

CUSTOMER: Aflex Pty Ltd	INVOICE NUMBER / MTR NO.	262077967001020380
	Commodity	DIN 6319C Spherical washer
	Size	M20
	DATE	May 26, 2025
	Standard	Q/TTPT001-2025
	DESCRIPTION	316 Stainless Steel

Heat No. NY250206AS14

Chemical Composition(%)

C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Ti	Nb	N	PREN
0.034	0.42	0.91	0.033	0.002	16.19	10.01	2.02	0.32	/	/	0.032	/

MECHANICAL PROPERTIES
Tensile Test (Longitudinal)

Rm (Mpa)	Rp0.2 (Mpa)	Elongation (A)%	Reduction of Area (Z)%	Hardness (HBW)
62/619	/	56/55	79/80	/

WE CERTIFY THAT THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLIES WITH THE ORDER/CONTRACT AND IS OF CHINA ORIGIN.

Qualified

MANUFACTURER'S SYMBOL

WORKS INSPECTOR

Factory: NO .881 Shengli West Road, Taocheng District, Hengshui City, Hebei Province, China Tel/Fax: +86-311-68037229

MDR -XXXXXXXXX-

MDR

-XXXXXXXXXX-

Material Certificate 134136 (Page 1 of 1)

TONG WIN INTERNATIONAL CO., LTD.

P.O.BOX 30,GANG SHAN, KAOHSIUNG, 82099 TAIWAN, R.O.C.

CERTIFICATE OF INSPECTION

EN ISO 16228 F3.1 / INSPECTION CERTIFICATE EN 10204-3.1		TEST DATE:	2026-01-28
PURCHASER:	BRIGHTON-BEST INTERNATIONAL (TAIWAN) INC.	INVOICE NO.:	WI2026030043
ADDRESS:	NO.122 YILIN ROAD,RENDE DISTRICT,TAINAN CITY 717,TAIWAN R.O.C.	PO NO.:	A19190
PART NO.:	869473	SHIP QTY:	225
MATERIAL:	STAINLESS STEEL A4-70	LOT QTY:	225
SIZE:	M20-2.5X3000	LOT NO.:	Z229627360003
		HEAT NO.:	NY251126AW04
PRODUCT:	DIN976A (DIN975) THREADED ROD,PAINT RED	ORIGIN:	CHINA

DIMENSIONAL INSPECTIONS (MEASURED BY MM) SPECIFICATION:DIN976A (DIN975) TEST FACILITY: TYPE M

CHARACTERISTICS	SPECIFICATION			ACTUAL RESULT			SAMPLE	RESULT
MAJOR DIA.	19.623	<--->	19.958	19.66	<--->	19.68	15	Qualified
PITCH DIA.	18.16	<--->	18.33	18.22	<--->	18.23	15	Qualified
LENGTH	2989.5	<--->	3010.5	2998.00	<--->	2999.00	15	Qualified
THREAD GO				OK			15	Qualified
THREAD NOGO				OK			15	Qualified
MARKING	RED			OK			15	Qualified
VISUAL APPERANCE				PASSED			15	Qualified
PASSIVATED				PASSED			15	Qualified

MECHANICAL PROPERTIES SPECIFICATION:ISO3506-1-2020 TEST FACILITY: TYPE M

CHARACTERISTICS	SPECIFICATION	ACTUAL RESULT			SAMPLE	RESULT
YIELD STRENGTH (RP0.2)(Mpa)	450.0 MIN	640.0	<--->	650.0	5	Qualified
TENSILE STRENGTH(Mpa)	700.0 MIN	780.0	<--->	790.0	5	Qualified

CHEMICAL COMPOSITION% TEST FACILITY: TYPE S

HEAT NO.	CX100	SiX100	MnX100	PX1000	SX1000	NiX100	CrX100	MoX100	CuX100
NY251126AW04	3.0	39.0	98.0	31.0	1.0	1001.0	1624.0	200.0	16.0

COUNTRY OF MELT AND POUR: CHINA

Q.A. EXECUTIVE

LINGXIAN
SAMPLER

Jan. 28, 2026
DATE

THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND TO THE ITEM(S) TESTED ONLY.
THE FASTENERS HAVE BEEN MANUFACTURED ACCORDING TO THE REQUIREMENTS OF THE APPLICABLE STANDARDS AND FOUND CONFORM WITH ITS REQUIREMENTS.

Material Certificate 133587 (Page 1 of 1)

YJGF

GUANGDONG YONGJIN METAL TECHNOLOGY CO.,LTD

Address: No.9 Haigang Sunheng Road, Port Industrial Park, Yangjiang High-tech Zone, Guangdong Province, China

Telephone: 0662-8891399

MILL TEST CERTIFICATE
(EN10204 3.1)

Product name: COLD ROLLED STAINLESS STEEL COILS						Customer			TSINGHOO TRADING LIMITED						Certificate No		KRE25/CCS07011-THT		
Type	316L/1.4404			Specification		ASTM A240/A480, ASME SA240/SA480, EN 10028-7									Certificate date		2026/2/26		
No.	Type/ Surface	Coil No.	Heat number	Size(mm)	Weight (kg)	Chemical composition %									Tensile			Hardness (HV) --	State
						C	Si	Mn	P	S	Ni	Cr	N	MO	T.S (N/mm2)	Y.S (N/mm2)	Elong(%)		
1	316L/1.4404	GD260113800534-001	Y250904C04C-9	1.2*1500*C	10263	0.023	0.430	1.040	0.033	0.002	10.030	16.700	0.036	2.020	611	287	56	158	solution annealing
2	316L/1.4404	GD260113800534-002	Y250904C04C-9	1.2*1500*C	10381	0.023	0.430	1.040	0.033	0.002	10.030	16.700	0.036	2.020	611	287	56	158	solution annealing
3	316L/1.4404	GD260113802582-01	Y251104A16C-2	1.5*1500*C	10316	0.023	0.430	1.360	0.029	0.002	10.060	16.600	0.037	2.030	588	292	57	155	solution annealing
4	316L/1.4404	GD260113802581-002	Y251104A16C-4	1.5*1500*C	10354	0.023	0.430	1.360	0.029	0.002	10.060	16.600	0.037	2.030	605	282	58	151	solution annealing
5	316L/1.4404	GD250613801549-001	Y250304A07C-5	2.0*1500*C	10203	0.021	0.460	1.340	0.023	0.002	10.040	16.690	0.038	2.020	629	302	58	152	solution annealing
6	316L/1.4404	GD250613801549-002	Y250304A07C-5	2.0*1500*C	10270	0.021	0.460	1.340	0.023	0.002	10.040	16.690	0.038	2.020	629	302	58	152	solution annealing
7	316L/1.4404	GD260113800533-001	Y250904B08C-1	3.0*1500*C	9878	0.023	0.460	1.330	0.031	0.002	10.050	16.750	0.040	2.040	605	282	58	151	solution annealing
8	316L/1.4404	GD260113800533-002	Y250904B08C-1	3.0*1500*C	10333	0.023	0.460	1.330	0.031	0.002	10.050	16.750	0.040	2.040	605	282	58	151	solution annealing
Total					81997														

Notes

1. Tensile Test original gauge length : 50mm.
2. We hereby certify that the products listed in this table are manufactured, sampled, tested and tested in accordance with the standards, and are in conformity with the standards and contract requirements.
3. This certificate is valid with the seal of the quality management department or the official seal of the authorized sales department, and the copy is invalid.
4. Certificates of approval of manufacturer of materials: AD 2000 W2/W10, PED 4.3 (2014/68/EU) No.: HPiVS-iP1001-186-Q-01-00.
5. This is to certify that the cold rolling process of the above products has been completed in China.

Quality Department

Material Certificate 133959 (Page 1 of 1)

MILL TEST CERTIFICATE

HOT-ROLLED STAINLESS STEEL PLATE EN 10204 3.1

66, Gohyeon-gil 98 beon-gil, Cheongha-myeon, Buk-gu, Pohang-si, Gyeongsangbuk-do, Korea

DKC Pohang
H.O/FACTORY :Tel:82-54-245-3064
SEOUL OFFICE :Tel:82-2-3016-2833
BUSAN OFFICE :Tel:82-51-315-9122

ISSUE DATE : 2025-12-10

End User	Works No.	Certificate Ref. No.
STIRLINGS PERFORMANCE STEELS	251105156	20251210-7792-1-028 1 / 2
2nd Customer		Purchase Order No.
1st Customer	STIRLINGS AUSTRALIA	164952

Specification	Sub-Section	Grade(TYPE)	Edition	Addenda	UNS	Finish
ASTM A240M/480M	24/24	316L/316			S31603/S31600	No.1
ASME SEC II SA240M/480M	PART A	316L/316	2023		S31603/S31600	No.1
NACE MR 0103 & 0175						

Heat Treatment – Solution Annealed	Condition of Plate	Mps No.
Min 1040 ℃ WATER COOLING	GOOD	
Intergranular Corrosion Test: ASTM A262 Practice E	UT Test Spec.	

No.	Bundle No.	Request-No.	Heat No.	Plate No.	Product SIZE (mm) T	W	L	Q'ty (sh)	Weight (kg)	AGS	POSITION	DIRECTION	SIZE	Impact Test(charpy) V-notch ℃ Min J 1st	2nd	3rd	Avg
1	2510-0101		24SD76191	24PC389765-1-02	50	2,000	6,020	1	4,848.0		T						
2	2506-0537		25E77110	25PZ209116-1-02	32	2,000	6,020	1	3,105.0		B						
3	2511-0438		25E78842	25PZ217593-1-01	16	2,000	6,020	1	1,555.0		T						
4	2511-0438		25E78842	25PZ217593-1-02	16	2,000	6,020	1	1,555.0		B						
5	2511-0441		25E78842	25PZ217594-1-01	16	2,000	6,020	1	1,555.0		T						
											B						
				Sub Total				5	12,618.0	Grand Total			6	14,173.0			

No.	Division	Chemical Composition (%) Cont	C	Si	Mn	P	S	Cr	Ni	Mo	N	Co	Cu	Ti	Nb	Practice A	E	B	C	POSITION	DIRECTION	GL	Tensile Test(1N/㎟=1MPa) Y.S 0.2%	Y.S 1.0%	T.S	EL 50	EL A5	Ra	Hardness
																							N/mm2			%	%	%	HRBW
		Max	0.030	0.75	2.00	0.045	0.030	18.00	14.00	3.00	0.100																		95
		Min						16.00	10.00	2.00													205		515	40			
1	LPLP		0.018	0.48	1.26	0.032	0.003	16.75	10.06	2.06	0.064	0.24	0.27			G				T	C	E	256.4	312.8	554.0	58.4			79.7
2	LPLP		0.020	0.66	0.83	0.031	0.001	17.51	12.08	2.08	0.035		0.30	0.003	0.02	G				B	C	E	236.4	293.4	558.0	59.8			74.6
3	LPLP		0.020	0.50	0.86	0.031	0.001	16.10	10.05	2.09	0.075		0.30	0.010	0.03	G				T	C	A	281.8	322.2	576.8	62.8			83.7
4	LPLP		0.020	0.50	0.86	0.031	0.001	16.10	10.05	2.09	0.075		0.30	0.010	0.03	G				B	C	A	281.8	322.2	576.8	62.8			83.7
5	LPLP		0.020	0.50	0.86	0.031	0.001	16.10	10.05	2.09	0.075		0.30	0.010	0.03	G				T	C	A	281.8	322.2	576.8	62.8			83.7
																				B									

Remarks

Mercury Free, No weld repair statement

Surveyor or Inspector to:

Manufacture Info. DK Corporation

NO WELD REPAIRS

Copyright(c) All rights Reserved by DK Corporation.

Note
- Position T:Top M:Middle B:Bottom
- Direction L:Longitudinal C:Crosswise (Transverse)
- GL(Gauge Length) ASTM E8
- Rectangula : A:50mm B:70mm C:100mm D:5.65√A
- Round : E:50mm F:70mm G:5.65√A
- Impact Test Specimen Size
- 1:10X10mm 2:7.5X10mm 3:5.0X10mm 4:2.5X10mm
- (1:0.39X0.39inch 2:0.3X0.39inch 3:0.2X0.39inch 4:0.1X0.39inch)
- Division L : Ladle Analysis P : Product Analysis
- AGS ASTM E112 A.G.S TEST
- ASTM A262 PracticeA
- 1: Step Structure 2: Dual Structure
- 3: Ditch Structure 4: Isolated Ferrite Rools
- 5: Interdendritic Ditchs 6: End Grain Pitting I.II
- ASTM A262 PracticeE
- G:GOOD N:NOT GOOD

General Manager of DKC Quality

H.B. CHAE

We hereby certify that the material herein has been made in accordance with the order and specification

F213-01(A4) 성적서 출력시 위변조방지마크가 표현됩니다. DKC (http://www.dkcsteel.com) Rev.12(2024.07.10)

위 정보는 e-BIZ 사이트 (http://ebiz.dkcsteel.com) '성적서 위변조 검증하기'를 통해 확인 할 수 있습니다.
The information above can be found through the e-BIZ site (http://ebiz.dkcsteel.com) 'Verification of report forgery' section

ORIGINAL

Material Certificate 123685 (Page 1 of 1)

TC No.- WE/VW/2024-25/8400021633900028

INSPECTION/MILL/MATERIAL/QUALITY/EN 10204/TYPE 3.1 CERTIFICATE

PRODUCT INFORMATION

Customer	:PROWELD WELDING PRODUCTS	Grade	:ER-316L
PO.No./ Date	:8617 23.07.2024	Heat No	:V19249
Invoice No.	:9400240791	Quantity	:500.000 KG
Product Form	:STAINLESS STEEL TIG WIRE		
Diameter	:1.6000 mm TOL :±0.05mm		
Article No.	:T316L16S		

Condition :BRIGHT DRAWN AND CUT LENGTH(1000 MM)

CHEMICAL COMPOSITION

Elements	C%	Si%	Mn%	P%	S%	Cr%	Ni%	Cu%	Mo%
Specified min		0.300	1.000			18.000	11.000		2.000
max	0.030	0.650	2.500	0.030	0.030	20.000	14.000	0.750	3.000
Results	0.0150	0.3600	1.7100	0.0230	0.0100	18.9800	11.2700	0.0600	2.1000

MECHANICAL PROPERTIES OF WIRE

Results		UTS (N/mm²)
		974

Heat Treatment : --

Remarks :

MATERIAL IS FREE FROM MERCURY & RADIOACTIVE CONTAMINATION.

MATERIAL CONFORMS TO ASME SECTION-II, PART-"C" SFA5.9/SFA5.9M.EDITION 2023,

MATERIAL CONFORMS TO AWS A5.9/A 5.9M : 2017, CLASSIFICATION ER-316L.

Internal Identification No : HH000001-000020.

Identification : BOX PR000149-000149.

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HERE IN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE CUSTOMERS REQUIREMENTS. MECHANICAL TEST RESULTS ARE TAKEN RANDOMLY FROM THE LOT. FOR ANY INFORMAION OR QUERY PLEASE QUOTE THE INVOICE NO./TC NO. OR INVOICE NO./BUNDLE NO.

NOTE : WHEN WIRE IS CHECKED BY PMI/XRF/EDX FOR CHEMICAL COMPOSITION, RESULTS MAY VARY AND SHALL NOT BE CONSIDERED AS A BASIS OF REJECTION.

Q. C.

Mr.Rathnakumara
(WORK INSPECTOR)

Date : 07.10.2024

DOC.No. F/QAD/06,R4

Testing and Quality Checks

Final Release Check

Release ID	XXXX
Technician	JW
Timestamp	08/07/26 09:16 AM

Automated System Checks

Check Item	Status
All Materials Records Complete	PASS
All Weld Records Complete	PASS
All Weld Tests Passed	PASS
Release Photo Added to Batch	PASS
No Unresolved Issues	PASS
All External Work Records Complete	PASS
All Additional Requirements Complete	PASS
All Additional Testing / Inspection Records Complete	PASS

Manual Dimensional / Quality Checks

Check Item	Value / Status
OAL (Overall Length)	350.0mm (Tolerance ±3mm)
Inlet Connection	Flange 135649 - 350NB AS4087 PN 16_ 316/316L
Outlet Connection	Flange 135649 - 350NB AS4087 PN 16_ 316/316L
Liner	Sheet - 1220 x 2440 1.5mm 316/316L
Bolt Hole Alignment	PASS
Flange Face Quality	PASS
Finishing Quality	PASS

All checks listed above were verified and passed at the time of release by the technician identified above.

MDR

- X X X X X X X X X X -

ISO 9001 Certification

Citation Certification

Certificate Number: 500-15633-Q

Certificate of Registration

This document certifies that the Management System at

Aflex Pty Ltd

Of

Unit 14, 12 - 14 Beaumont Road, Mt. Kuring-gai NSW 2080 Australia

has been evaluated by the auditors of Citation Certification Pty Ltd and found to be conforming to the requirements of:

ISO 9001:2015 Quality Management Systems

In respect of the following activities:

Design and manufacture of metal expansion bellows for use in pipework

This certificate is valid from 06/09/2024 to 06/09/2027

Original Certification Date: 21/09/2013

Current Issue date: 06/09/2024

Barry Fairman

Barry Fairman - Certification Manager

Citation Certification Pty Ltd

To verify the validity of this certificate please visit https://register.jasanz.org/certified-organisations

Citation Certification Pty Ltd trading as Citation Certification

Ground Floor, Suite 1, 352 Hunter Street, Newcastle, NSW 2300 Australia

1800 065 800 | https://citationgroup.com.au/certification/

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