

MATERIAL TEST CERTIFICATE

(EN 10204 - 3.1)



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Certificate No. : FT201901-058-001
Date : 2019/01/16
P.O No. : L73902
MPS. No. :

Felix MR No. : 0201805-026 Rev.1
Mat'l Specification : ASTM A182 F316/316L-18/ASME SA182 F316/316L-2017ED
Customer : TA CHEN INTERNATIONAL, INC
Project Name :

Description	Lot No	Tensile Test *1						Hardness (HB)	Impact Test				Bend Test	Material Code
		Specimen		Y.S	T.S	E.L	R.A		Temp.	Notch	Unit	Size :		
		D	G.L	(MPa)		%								
		205	515	30	50									
Total Qty : 968 EA Qty (EA)							237							
22 B16.5 #150 WN RF 2" SCH10S	157	HB31A4(T1)	1	6.25	25.0	334.0	588.8	66.8	79.9	145 / 146				F16L1W020
28 B16.5 #150 SW RF 2" SCH40S	12													F16L4SW020
30 B16.5 #150 WN RF 2" SCH40S	105													F16L4W020
33 B16.5 #150 BL RF 1 1/2"	32													F16LB010
37 B16.5 #150 IJ FF 1 1/2"	30													F16L1J010
39 B16.5 #150 IJ FF 2"	145													F16L1J020
41 B16.5 #150 SO RF 1 1/2"	20													F16L5010
42 B16.5 #150 SO RF 2"	212													F16L5020
45 B16.5 #150 TH RF 1 1/2"	85													F16L1010
46 B16.5 #150 TH RF 2"	210													F16L1020
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Heat No	Spec	Chemical Composition (%) *3												
		C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	Nb	N	Al
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
55458	H	0.030	1.00	2.00	0.045	0.030	14.0	18.0	2.00				0.10	
	P	0.022	0.42	1.75	0.031	0.0272	10.09	16.89	2.04				0.0539	

REMARK
Country of Mfg: JAPAN / F.A.S. V.D.D
Country of Forging: Republic of Korea
NACE MR0103/ISO 17945-2015 & MR0175/ISO 15155-2015
-22°C Max. (-20°F)

Heat Treatment *4	Dimension & Visual	NDE		
		UT	MT	PT
		N/A (N/A)	N/A (N/A)	N/A (N/A)
S : 1050°C x 2Hrs W.C	ACCEPT			

Surveyor: _____
We hereby certify that the material herein has been manufactured, tested and inspected in accordance with the above specification.

[Signature]
Manager / QC Team

Note : *1 -- Tensile Test : Y.S-Yield Strength, T.S-Tensile Strength, E.L-Elongation, R.A-Reduction of Area, L- Gauge Length(mm), D-Diameter(mm)
*2 -- Location : L-Longitudinal, Tr-Transverse, T-Tangential, R-Radial, U-Hubbed Tension Test 0.25x25.0mm (AGUE SEC. IV Div.1; PARA LM-12.3)
*3 -- Chemical Composition : H-Heat Analysis, P-Product Analysis
*4 -- Heat Treatment : N-Normalized, A-Annealed, Q-Quenched, T-Tempered, S-Solution Treated, S.R-Stress Relieved, S.T-Stabilization Heat Treatment, A.C-Air Cooled, W.C-Water Cooled, F.C-Furnace Cooled, D.C-Duff Cooled, A.C-Accelerated Cooled By Water
CE : C + (Mn/8) + ((Cu+V)25 + (Ni+Co)15)

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TA CHEN INTERNATIONAL, INC.

MILL TEST REPORT

Cust#: HARSPR Company#: HARRY COOPER SUPPLY CO
MTR#: ENFL00103-11.pdf PO#: P1341745 SO#: L6C8K0
Item: F16LB01D Bundle: HB31A4 Heatno: HB31A4

Stock

4725113



SSFLANGE 1- 1/2IN 150# 316 SS BLIND
FLANGE IMPORT