



**CHANDAN STEEL LIMITED**  
(GOVT. OF INDIA RECOGNISED EXPORT HOUSE)  
ISO 9001 : 2015 CERTIFICATE No. 04 100 011022

Stock 4725021 11/05/2019  
SSFLANGE 1-1/2IN 150# 304 SS RF  
SLIP ON FLANGE

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATIL MARG,  
MUMBAI 400 007, INDIA  
Tel: 91-22-66290600, Fax: 91-22-66290633/34  
Website : www.CHandansteel.net  
Email : csl@CHandansteel.net  
L/c. No. : —  
L/c. Date: —

WORKS: Plot No. 35, G. I. D. C., Umbargam,  
Dist. Valsad, Gujarat - 396 171.  
Tel.: 91-260-256 2066 / 4367 / 1166, Fax.: 91-260-256 2287  
E-mail : exports@CHandansteel.net

INSPECTION CERTIFICATE 3.1  
ACCORDING TO EN 10204

SOUTHWEST STAINLESS & ALLOY HOUSTON - SWS, 3730 SOUTH MAIN STREET PEARLAND, TX 77581 Phone : 713-943-3790 8880 Fax: 713-948-5600	Test Certificate No. : EXP/ 00228-11 / 2019-2020 Date of Issue : 12.05.2019 P. O. No. : 677221 Invoice No. & Date : EXP/ 00228 / 2019-2020 Dtd. 12.05.2019
--	---

ITEM DESCRIPTION  
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

PO Sr. No.	ARTICLE NO.	Heat No.	Pcs	Box No.	Wt.Kggs	Grade	Item	Process Route
22	SO150B10-S	CH-9630	3	1	50.22	F304/304L	10" SORF 150LBS	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
21	SO150B1.5-S	CH-9691	35	2	47.25	F304/304L	1 1/2" SORF 150LBS	
91	BL300B1-S	CH-9691	28	2	39.76	F304/304L	1" BLRF 300LBS	
65	TH150B.75-S	CH-9836	53	2	35.51	F304/304L	3/4" THDRF 150LBS	
108	TH300B1-S	CH-9859	27	2	38.34	F304/304L	1" THDRF 300LBS	

CHEMICAL COMPOSITION (Weight %)

PO Sr. No.	ARTICLE NO.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
22	SO150B10-S	0.028	0.40	1.60	0.036	0.030	18.30	-	8.05	-	-	0.082	-
21	SO150B1.5-S	0.024	0.43	1.56	0.039	0.002	18.10	-	8.06	-	-	0.083	-
91	BL300B1-S	0.024	0.43	1.56	0.039	0.002	18.10	-	8.06	-	-	0.083	-
65	TH150B.75-S	0.026	0.46	1.71	0.036	0.003	18.10	-	8.02	-	-	0.081	-
108	TH300B1-S	0.024	0.38	1.62	0.037	0.009	18.12	-	8.04	-	-	0.088	-

MECHANICAL PROPERTIES

PO Sr. No.	ARTICLE NO.	HEAT TREATMENT BATCH NO.	Yield Strength (N/mm <sup>2</sup> )		Tensile Strength N/mm <sup>2</sup> (R <sub>m</sub> )	% EL	% R.A.	Hardness (H.B.W.)	Charpy (V) Impact Test (2mm) at 20°C (Joules)			
			0.2% (R <sub>0.2</sub> )	1% (R <sub>0.1</sub> )					Sample Size - 10 x 10 x 55mm			
									I	II	III	Avg.
22	SO150B10-S	F2/018/3716	298	349	599	50	69	170-174	158	162	169	163
21	SO150B1.5-S	F2/018/4009	270	317	569	57	74	161-165	164	171	169	168
91	BL300B1-S	F2/018/4009	270	317	569	57	74	161-165	164	171	169	168
65	TH150B.75-S	F2/018/4231	270	316	583	56	74	163-167	168	165	173	169
108	TH300B1-S	F2/018/3997	277	324	574	51	75	167-169	165	170	174	170

Remarks:

- The material is solution annealed at minimum 1050°C and water quenched.
- Material is free from mercury and radio-active contamination and is found within the limits of the background radiation.
- FMI test 100% satisfactory.
- Inter-Granular Corrosion Test as per ASTM A 262 - 15 (Pr.E) satisfactory.
- The material conforms to ASTM A 182 - 17, ASME SA 182 - 17 & Dimension conforms to ASME B16.5 - 13 Specification.
- Visual and Dimensions inspection done and found satisfactory.
- The material hardness conforms to NACE MR0175/ISO 15156-3:2015 & NACE MR0103-2015.
- Material was manufactured, sampled, tested, and inspected in accordance with indicated specification(s) solely by the manufacturer listed herein and was found to meet the requirements.
- No weld repair was performed and all products are free of weld repair.
- The steel making is by Chandan Steel Limited, India
- Country of Melt, INDIA.

We hereby certify that, the material described herein,  
and supplied are in compliance with the requirements of the order.



*Q.A.*  
V Y NARAYANAN  
SR. MANAGER - Q. A.