



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

Stock 4725021 01/17/2020  
SSFLANGE 1 - 1/2IN 150# 304 SS RF  
SLIP ON FLANGE

ADM. OFFICE: 504, SUKH SAGAR, N. S. PATKAR 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., Umbergaon  
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/ 00043-09 /2019-2020 Date of Issue : 03.04.2019 P. O. No. : 677221 Invoice No. & Date : EXP/ 00043/2019-2020 Dtd. 03.04.2019
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ITEM DESCRIPTION  
STAINLESS STEEL FORGED & FULLY MACHINED FLANGES

PO Sr. No.	ARTICLE NO.	Heat No.	Pcs	Box No.	Wt.Kgs	Grade	Item	Process Route
3	SO150B6-S	CH-9653	1	17	7.84	F304/304L	6" SORF 150LBS	Electric Induction Melting, A.O.D. Refining, Continuous Casting & Hot Forging
11	BL150B6-S	CH-9381	7	17	84.28	F304/304L	6" BLRF 150LBS	
21	SO150B1.5-S	CH-9691	71	40	98.69	F304/304L	1 1/2" SORF 150LBS	
23	SO150B12-S	CH-10164	10	17&38	271.80	F304/304L	12" SORF 150LBS	
25	SO150B2FF-S	CH-9860	110	17	247.50	F304/304L	2" SOFF 150LBS	

CHEMICAL COMPOSITION (Weight %)

PO Sr. No.	ARTICLE NO.	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Ti	N	OTHERS
3	SO150B6-S	0.024	0.43	1.73	0.035	0.008	18.28	-	8.10	-	-	0.073	-
11	BL150B6-S	0.027	0.46	1.79	0.035	0.011	18.04	-	8.02	-	-	0.070	-
21	SO150B1.5-S	0.024	0.43	1.56	0.039	0.002	18.10	-	8.06	-	-	0.083	-
23	SO150B12-S	0.029	0.46	1.91	0.037	0.010	18.34	-	8.08	-	-	0.075	-
25	SO150B2FF-S	0.027	0.35	1.74	0.035	0.007	18.33	-	8.00	-	-	0.086	-

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) Sample Size - 10 x 10 x 55mm			
			0.2% (R <sub>0.2</sub> )	1% (R <sub>p1.0</sub> )					I	II	III	Avg.
3	SO150B6-S	F2/018/3941	289	342	598	55	70	168-172	158	165	169	164
11	BL150B6-S	F2/018/3110	284	335	587	57	72	167-171	170	175	160	168
21	SO150B1.5-S	F2/018/3903	275	327	586	57	76	172-175	160	167	158	162
23	SO150B12-S	F1/018/2094	298	350	603	50	71	170-174	168	172	161	167
25	SO150B2FF-S	F2/018/3694	274	329	582	50	78	160-164	170	167	177	171

- 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.
  - PMI 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 confirms 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.



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

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