



Previously known as

TIRUPATI FORGE PVT. LTD.

Works & Regd. Office:

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CIN No.: L27320GJ2012PLC071594

INSPECTION CERTIFICATE		Doc.No.: R QC 08	
In accordance with EN 10204 3.1		Rev.No/Dt.: 00/01.05.2018	
CUSTOMER : SERVICE METAL	T.C. No. : 055/21-22	T.C. DATE : 31/Jul/2021	
3500 E CROSS TIMBERS	INVOICE No. : E-055/21-22	31/Jul/2021	
HOUSTON, TX 77093 - USA	ORDER No. : P1026447		
PRODUCT : Carbon Steel Forged Flanges	MACHINED STD : ANSI B-16.5/17		
FORGING : ASTM A105-18/ASME SA105-19	MARKED LOGO : Tirupati		
SPECIFICATION	MARKING : MSS-SP-25-2013		
SERRATED FACE STD : MSS-SP-6			

PRODUCT DETAILS & TEST RESULTS

ITEM		6" 150# SOFF		6" 150# SOFF		8" 150# SOFF		8" 150# W/N RF STD	
PCS		120		510		50		225	
CASE No.		1		1 TO 5		6		7 TO 11	
ELEMENTS	Specified	Actual Results		Actual Results		Actual Results		Actual Results	
	Composition %	TFPL Lab	Steel Mill T.C	TFPL Lab	Steel Mill T.C	TFPL Lab	Steel Mill T.C	TFPL Lab	Steel Mill T.C
Heat No.:		H312	06-24-03	H313	06-24-02	H309	06-19-03	H223	04-23-02
Chemical Composition									
Carbon	0.35 Max	0.199	0.220	0.200	0.220	0.211	0.220	0.199	0.210
Manganese	0.60-1.05	0.858	0.940	0.902	0.970	1.050	1.010	0.960	0.970
Sulfur	0.040 Max	0.018	0.017	0.016	0.016	0.025	0.022	0.016	0.017
Phosphorus	0.035 Max	0.028	0.028	0.027	0.028	0.027	0.030	0.021	0.022
Silicon	0.10-0.35	0.252	0.300	0.299	0.310	0.317	0.300	0.321	0.300
Copper	0.40 Max	0.053	0.060	0.041	0.050	0.080	0.080	0.053	0.050
Nickel	0.40 Max	0.026	0.040	0.031	0.040	0.057	0.060	0.035	0.030
Chromium	0.30 Max	0.065	0.100	0.114	0.110	0.157	0.140	0.070	0.110
Molybdenum	0.12 Max	0.003	0.020	0.003	0.020	0.046	0.030	0.006	0.020
Vanadium	0.08 Max	0.003	0.001	0.001	0.001	0.008	0.001	0.005	0.001
Carbon Equi. (CE)	0.470 Max	0.361	0.408	0.379	0.414	0.437	0.432	0.381	0.403
Mechanical Properties									
Properties	Specified	Obtained		Obtained		Obtained		Obtained	
Y.S. (MPA)	250 Min.	366.52		366.60		386.58		347.10	
UTS (MPA)	485 Min.	532.20		529.31		535.21		502.31	
Elongation %	22 Min.	28.20		28.40		28.60		27.80	
Reduct. Area %	30 Min.	62.18		65.01		64.00		62.18	
Hardness HB	137-187	157		159		163		159	

DECLARATION :

- * Products are "Made in India".
- * Flanges of Class 150# & 300# are Non-Normalised and 600# & above are Normalized.
- * The steel used in manufacturing of flanges are Melt Indian Origin.
- * We here by certified that the material have been tested and inspected in our and all test results are in compliance with above referred specifications.
- * Our Quality System registered to ISO 9001-2015 by TUV NORD CERT GmbH



QUALITY CONTROL
IN-CHARGE

Stock 4709895 10/21/2021



MATCONOR MIN150FSF13 6IN 150LB SL
ON WELD FLAUGE FF