

Test Certificate

BS EN 10204 - 3.1 [Ed. 2004]



An ISO 9001-2015 Certified Organization

PED 2014/68/EU & AD-2000-MERKBLATT Wo Cert. No. 01 202 Ind/Q-18-0021

Client Name

Invoice No. & Date : **12019**

Dated : **17-Aug-22**

TC No. & Date : **316A**

Dated : **17-Aug-22**

Manufacturing Unit : Survey No. 239/1, Behind GEB Power House (Shapar) Veraval, Rajkot, Rajkot, Gujarat-360024

Tel. : +91 2827 299526 | E-mail : info@rollwellforge.com | Website : www.rollwellforge.com

Designation of Article			Material Grade			UNS No.		Melting Process		Name of Steel Mill		
CARBON STEEL Flange			ASTM A/SA 105 Ed.2021			K03504		AEF		RINL		
Sr.	PO No. / PO Sr.No.	Qty.	Product Description			Standard / Dimension		Condition	Heat Lot No.	Mill Heat No.	SO No.	Marking
1	124/005110	913	Flange ASME-2"-150#-SORF			ASME B16.5 Ed.2020		Finish	RH-1878	06-25-04	7547	ASME B16.5 Ed.2020

CHEMICAL ANALYSIS [ASTM E-415-2020]

Elements	C%	Mn%	P%	S%	Si%	Cr%	Mo%	Ni%	Cu%	V%	Al%	Cr+Mo%	Cu+Ni+Cr+	CE%
Specified	0.35 Max.	0.6-1.05	0.035 Max.	0.04 Max.	0.1-0.35	0.3 Max.	0.12 Max.	0.4 Max.	0.4 Max.	0.08 Max.	0.02 Min.	0.32 Max.	1 Max.	0.47 Max.
Ladle Analysis	0.23	0.8	0.029	0.024	0.28	0.12	0.02	0.09	0.08	0.001	0.020	0.14	0.311	0.402
RH-1878	0.238	0.758	0.022	0.022	0.272	0.164	0.009	0.052	0.075	0.004	0.022	0.173	0.304	0.408

Heat Treatment : N/A

MECHANICAL TESTS

Test Type (Direction T)	Tensile Testing [ASTM A370 Ed.2020A]				V-Notch Charpy / Impact Test [ASTM A370 Ed.2020A]				Hardness Test [ASTM E10 Ed.2015] BHN
	Tensile Strength Rm	Yield Strength Re	Elongation A	Reduction of Area	Energy of Impact (Temperature + °C) Sample Size (10x10x5mm)				
	ksi	Reb/Rp ksi	Lo = 4d %	Z %	1	2	3	/ n	
Specified	485 Min.	250 Min.	22 Min.	30 Min.	-	-	-	-	197 Max.
RH-1878	534	317	26	54	-	-	-	-	145,147,145

Additional Requirements :

Marking - acceptable as per ASME B16.5 Ed.2020 :
 Surface and dimentional inspection - Accepted as Per ASME B16.5 Ed.2020 :
 NACE MR-0175/ISO 15156 - 2015 & MR0103/ISO 17945-1 :2015 -YES :

For, Rollwell Forge Pvt. Ltd.



We Confirm That Material is Free From Mercury Contamination & Radioactive Contamination.
 We hereby certify that the material herein described has been manufactured sampled, tested & inspected in accordance with above
 standard, specification & purchase order.

[Q.A. Manager]