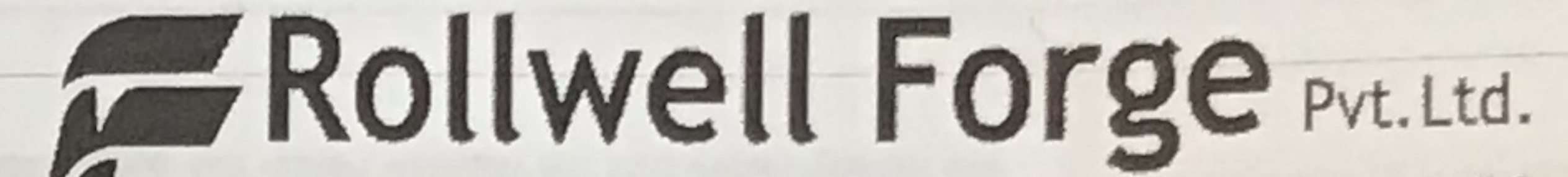


# Test Certificate

BS EN 10204 - 3.1 [Ed. 2004]



ENGINEERING COMPONENTS & FLANGES

An ISO 9001-2015 Certified Organization

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

Client Name : **Norca Industrial Llc C/o. Gpvf Llc - Import Of Record**

Invoice No. & Date : **12027** Dated : **17-Oct-22**

TC No. & Date : **RWF/473** Dated : **20-Oct-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	124/005131/2	100	FLANGE ASME-12"-150#-SORF	ASME B16.5 Ed.2020	Finish	RH-1873	5E2	7483	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	0.220	0.840	0.028	0.018	0.250	0.060	0.020	0.040	0.090	0.005	0.023	0.080	0.215	0.4
RH-1873	0.206	0.831	0.025	0.012	0.235	0.063	0.006	0.029	0.058	0.003	0.030	0.069	0.159	0.4

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 + 0°C) Sample Size ( 10x10x5mm )				
	ksi	Reb/Rp 0.2% ksi	Lo = 4d %	Z %	1	2	3	/ n	
Specified	485 Min.	250 Min.	22 Min.	30 Min.	-	-	-	-	197 Max.
RH-1873	559	317	27	53	-	-	-	-	150,153,150

### Additional Requirements :

Marking - acceptable as per Customer requirement :

Surface and dimensional 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.



[Q.A. Manager]

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.