

RATE LIST OF VARIOUS TESTING/SERVICES w.e.f. 21.09.2020

Chemical Energy & Environmental Laboratory

The following Test/Analysis/Sampling etc. can be taken from our laboratory:

1. Chemical Analysis of Iron & Steel :

<u>Elements</u>	<u>Rate per sample (Rs.)</u>
i) For Basic 5 elements (i.e. C, Mn, Si, P & S)	Rs. 3000/- per sample
ii) Each element of above 5	Rs.1000/- per sample
iii) Any two elements from basic five elements	Rs. 1500/- per sample
iv) Nickel, Chromium, Tungsten Molybdenum in steel	Rs.1500/- per sample per element
v) Aluminum, Copper, Titanium (By AAS)	Rs.1500/- per sample per element
vi) Nitrogen (By Nitrogen Testing apparatus)	Rs.2000/- per sample
vii) Total Carbon in Cast iron	Rs.1000/- per sample
viii) Silico Manganese	Rs.1500/- per element per sample
ix) Boron, Cobalt, Calcium, Tin, Niobium, Vanadium	Rs.1500/- per element per sample
x) Ferro Chrome: Carbon	Rs.1000/- per element per sample
Chromium	Rs.1500/- per element per sample
Silicon	Rs.1500/- per element per sample
Nitrogen	Rs.2000/- per element per sample
xi) Ferro Silicon: Carbon	Rs.1000/- per element per sample
Silicon	Rs.1500/- per element per sample

Sponge Iron Analysis

i) Sponge Iron (Total Iron, Metallic iron, metallization)	Rs.3000/- per sample
ii) Total iron & moisture in Mill scale	Rs.2500/- per sample
iii) Total Carbon in Sponge iron	Rs.1000/- per sample
iv) Zinc in APCD Dust / Zinc Dust	Rs.2000/- per sample

Analysis of Galvanized Steel

i) Analysis of mass of zinc coating	Rs.2500/- per sample
ii) Uniformity test	Rs.1800/- per sample
iii) Adherence Test	Rs.1500/- per sample
(Combined all three)	Rs.5000/- per sample
iv) Tin Coating	Rs.3500/- per sample
v) Zn Coating thickness determination	Rs.1000/- per sample

2. Fuel Analysis :

Parameters	Charges (Rs.) per sample
i) Moisture Content	Rs. 1000/-
ii) Viscosity Pre-heat Temp.	Rs. 1000/-
iii) Calorific Value (Coal or Oil)	Rs. 2000/-
All three above test combined in Furnace oil	Rs. 3000/-
iv) Sieve Analysis	Rs.800/-

3. Water Analysis:

i) Total Dissolved Salts (TDS)	Rs.700/- per sample
ii) Suspended Solids	Rs.800/- per sample
iii) pH	Rs.250/- per sample
iv) Conductivity	Rs.250/- per sample
v) Hardness	Rs.500/- per sample
Combined All above tests	Rs.1500/-per sample

4. Air Testing Charges

S. No.	Test/Analysis	Charges (Rs.)	
		Ambient Air	Stack
1.	Acid mist	--	700.00
2.	NH ₃	1000.00	1000.00
3.	CO	500.00	500.00
4.	CO ₂	--	--
5.	Gaseous fluoride	1100.00	1100.00
6.	H ₂ S	1050.00	1050.00
7.	Metals (each element)	--	--
8.	NO _x	*	*
9.	NO ₂	700.00	700.00
10.	Noise (per location)	--	--
11.	O ₂	--	*
12.	Particulate fluoride	1100.00	1100.00
13.	SPM	*	*
14.	SO ₂	*	*
15.	SO ₃	700.00	--
16.	Temperature	--	*
17.	Total fluoride	1100.00	1100.00
18.	Velocity	--	*

5. SAMPLING/COLLECTION CHARGES

Air (Stack Monitoring & Ambient Air Quality monitoring)

Type of Sample	Charges (Rs.)	
	Ambient	Stack
For one day	*4000.00	5000.00
	* Consisting of 8 hrs. in regular 9 a.m. to 5 p.m. 24 hrs. sampling Rs.10,000/- . Odd hours Rs.5000/- per sample consisting of 8 hours.	

NOTE : Outstation charges Rs.2000/- per day wherever applicable.

6. METALLOGRAPHY LABORATORY

A. Metallography Laboratory

S. No.	Test	Charges (Rs.) per sample
01	Microstructure	Rs.1500/-
02	Grain Size determination	Rs.1000/-
03	Inclusion Rating	Rs.1500/-
04	Decarburization depth	Rs.1500/-
05	Case depth	Rs.1500/-
06	Nodule count, carbide, Nodule Shape determination in S. G. Cast Iron	Rs.1500/-
07	Graphite Flake type and size in Cast Iron	Rs.1500/-
08	Vickers' cum Micro Hardness	Rs.1000/-
09	Image Analysis	Rs.3500/-
10	Macro Examination of Steel	Rs.1500/-
11	Sulphur Print	Rs.2000/-
12	Distribution of carbides	Rs.1500/-
13	Carbide density	Rs.1500/-
14	Jominy test/Hardenability	Rs.2000/- + Rs.500/- (Sample Preparation)
15	Blue Fracture Test	Rs.1500/-

B. Direct Reading Spectrometer

S. No.	Test	Charges (Rs.) Per Sample
01	Elemental analysis of Steels & Cast Iron for 16 elements and Grade determination	<ol style="list-style-type: none">1. Rs.500/- for C, S, P, Si, Mn, Ni, Cr, Mo, V, W, N, Cu, Al, Sn, B, Nb2. Rs.200/- for each additional element.3. Rs.500/- for providing grade4. Rs.100/- for providing C.E

7. MECHANICAL & NDT LABORATORY

Sr.No.	Name of existing Test/Analysis	Charges (Rs.) Per Sample	
1	Tensile/Compression Test by UTM (TS, YS, % Elongation)	Rs.1500/- Dumble Sample Preparation Rs.500/-	
2	Nut/Bolt Test(Tensile Type)	Rs.500/-	
3	Bend Test	Rs. 500/-	
4	Rebend Test	Rs. 500/-	
5	Double Shear Test	Rs.500/-	
6	Drift Expanding (for tubes)	Rs.500/-	
7	Flattening (for tubes)	Rs.500/-	
8	Hardness Rockwell/Brinell	Rs.500/-	
9	Impact Testing (Izod/Charpy) (Set of three samples)	Room Temperature	Rs.1000/-
		Zero Testing	Rs.1500/-
10	Erichson Cupping	Rs.500/-	
11	Dynamic/Impact Hardness Test (SHORE)	Rs.500/- (a) Visit Charge a) Local-Nil b) Out station – Rs.750/- (b) Transport a) Local – Rs.500/- b) Out station – Actual	
12	Ultra Sonic Test	Rs.700/- per Sq. Meter Scanning Charge + visit charge Minimum Charge Rs.500/- a) Local-Nil b) Out station – Rs.750/- + Transport a) Local – Rs.350/- b) Out station – Actual	
13	Surface roughness	Rs.500/-	
14	Strain ageing	Rs.1500/-	
15	N value	Rs.1500/-	
16	R value	Rs.1500/-	
17	Bake hardening	Rs.1500/-	
18	Y groove	Rs.1500/-	
19	Camber	Rs.500/-	
20	Rolling mass	Rs.500/-	
21	Crown	Rs.500/-	
22	Flattening	Rs.500/-	
23	Strain measurement	Rs.500/-	
24	Freedom from defect	Rs.500/-	
25	Surface finish	Rs.500/-	
26	Straightness workmanship	Rs.500/-	
27	Pipe/tube ends	Rs.500/-	

28	Hydrostatic test	Rs.1500/-
29	Bend for strip 180 ⁰	Rs.500/-
30	Crushing	Rs.500/-
31	Bend of whole pipe 90 ⁰	Rs.500/-
32	Eccentricity	Rs.500/-
33	Fracture disc test	Rs.1500/-
34	Crop test of bar	Rs.1500/-
35	Cold shearability	Rs.500/-
36	Deflection	Rs.500/-
37	Shear strength	Rs.500/-
38	Ageing embrittlement	Rs.1500/-
39	Fracture toughness	Rs.1500/-
40	Magnaflux	Rs.250/- per Sq. Feet (Min. Charges Rs.550/-)
41	Measurements of Tolerances / Dimensions/Thickness	Rs.500/-
42	Weight per unit length	Rs.400/-
43	Twist (for tubes)	Rs.500/-
44	Rib Test	Rs.750/-
45	Surface inspection of Ingots	Rs.1200/-
46	Pullout	Rs.10000/-
47	Cold Upsetting Test	Rs.2000/-

8. Safety Inspection / Safety Audit

I.)

S. No.	Name of Equipment	Charges Rs.(each)
01*	Crane Testing (EOT, Electric Hoist, Winch Hoist, Mobile/Hydra Crane, Fork Lift)	Rs.1200/- upto 10 Ton crane Rs.1650/- above 10 Ton crane
02*	Chain Pulley Block	Rs.800/- upto 10 Ton Rs.1000/- above 10 Ton
03*	Chain Sling	Rs.550/-
04*	Pressure vessel upto 1000 ltr.	Rs.1100/- (without hydraulic test) (Rs.500/- for Additional 1000 Ltr)
05*	Hydraulic testing of pressure vessel upto 1000 ltr.	Rs.2000/- (Only Hydraulic Test) (Rs.500/- for Additional 1000 Ltr)
06*	Pressure vessel upto 1000 ltr. With hydraulic testing	Rs.2500/- (Including Hydraulic Test) (Rs.500/- for Additional 1000 Ltr)
07*	Dangerous Machinery/ Power Presses	Rs.1200/- per machine

II.)

08	Safety Audits	As per scope of work & man days required
----	---------------	--

*Note: If no. of Equipments is more than five in the same unit, than the discount of 10% will be given.

Electrical Testing's

S. No.	Name of Testing	Charges
1.	Transformer Oil Dehydration	Rs.5.00/- per liter subject to minimum charge of Rs.2000/- per transformer + machine transportation.
2.	Transformer Oil Testing	Rs.500/- per sample Rs.300/- for Sample Collection

9. Short Term Courses

S. No.	Name of Course	Duration	Charges
1.	Implementation of 5S	5 days Beyond 5 days	Rs.1,25,000/- per unit Rs.15,000/- per day
2.	In-house training programmes Basic course • Specialized Course • Performance Improvement • Training		Rs.40,000/- per day Rs.60,000/- per day Rs.75,000/- per day
3.	Development of SOP & SMP manual		Depending upon type of modules & shall vary from case to case basis.
4.	Electrical Basics & Maintenance of electrical equipments	4 months (once a week)	Rs.15,000/- per student
5.	Furnace Operator	4 months (once a week)	Rs.20,000/- per student
6.	Chemical Testing of steel	4 months (once a week)	Rs.20,000/- per student
7.	Mechanical Testing	4 months (once a week)	Rs.20,000/- per student
8.	Safety in Steel Melting and Scrap Segregation	10 hrs.	Rs.10,000/- per student
9.	Understanding Steels & Cast Iron through Microstructure & Property Co-relationship – Microstructure examination	4 months (once a week)	Rs.20,000/- per student
10.	Quality steelmaking	4 months (once a week)	Rs.30,000/- per student
11.	Ferrous Heat Treatment	4 months (once a week)	Rs.25,000/- per student
12.	Ferrous Metallurgy for Non-metallurgists	4 months (once a week)	Rs.25,000/- per student
13.	Arc & Induction furnace steelmaking & Continuous casting	4 months (once a week)	Rs.30,000/- per student

NOTE:

1. GST shall be extra, as applicable.
2. Cost on travel, stay and other arrangements, if any are to be borne by the concerned unit.

10. Energy Audits/Combustion Studies

S. NO.	Services	Charges
01	Energy Audit of Rolling Mills, Induction Furnaces, mini steel plants & general industries	As per load & volume of work
02	Mandatory Energy Audit, Monitoring & Verification (M&V) Audit of Designated Consumers of B.E.E.	As per load & volume of work
03	Combustion analysis of Re-heating furnaces	Rs.6000/- per furnace
04	Combustion performance study of Re-heating furnaces	Rs.20000/- per furnace
05	Technical visits	Rs.10000/- per day

11. Slag Testing

S. NO.	Services	Charges
01	FeO (Ferrous Oxide)	Rs.1500/- per sample
02	SiO ₂ (Silicon dioxide/Silica)	Rs.1500/- per sample
03	MgO (Magnesium oxide)	Rs.1500/- per sample
04	MnO (Manganese oxide)	Rs.1500/- per sample
05	CaO (Calcium oxide/Quicklime)	Rs.1500/- per sample

NOTE:

1. GST shall be extra, as applicable.
2. Cost on travel, stay and other arrangements, if any are to be borne by the concerned unit.