

Annexure- GEL-F

GLOBAL ENGINEERS LIMITED

FACILITIES

Today, GLOBAL Engineers Limited can boast of having the largest shop floor in the Northern Capital Region (NCR – Delhi, Gurgaon, Ghaziabad and Noida) of National Capital Territory in India.

We have 3 separate bays each for Stainless Steel, Carbon Steel and Process Plants, respectively of total floor area equal to 2600 sq meter along with 8000 Sq meter area is for further expansion work.

PRODUCTION Factory:-

Plot Area – 17000 Sq. Meter

1.	Floor Area a) Total Covered Area b) Total covered, enclosed & clean shop area exclusively for stainless steel fabrication. c) Uncovered Area		a) 2600 sq.m b) 1000 sq.m c) 17000 sq. m	
2	Workforce			
a	Top Management			
	Nam e		Designatio n	
	Dr. G.M.Gupta	Managing Director		
	Mr. Vivek Gupta	Director- Business D	evelopment	
	Mrs. Veena Sharma	Director-HR		
b	At Head Office	> Managerial - 6 N	os.	
		> Supervisory - 6 N	los.	
		➤ Skilled - 10 Nos.		
		➤ Unskilled-3 Nos.		
c	At Factory	➤ Managerial-4 No	os	
		➤ Supervisors : 6		
		> Skilled Workers	: 44	
		➤ Unskilled worke	ers: 45	
		➤ Qualified Mech.	Fitter with minimum 5 year Experience	
		– 13 Nos		
			Velder as per ASME Sec. IX – 12 Nos.	
		➤ Grinder Man – 1	15 Nos.	
		➤ Riggers – 4 Nos.		



d	At Sites / Service & Support	➤ Northern India - 23 Nos.
		➤ Eastern India - 24 Nos.
		➤ Western India - 6 Nos.
		➤ Southern India-12 Nos.



DETAILED DESCRIPTION TOOLS & MACHINERY FABRICATION SHOP – MACHINERY

LIST OF MACHINERY AT FACTORY

CUTTING MACHINES

S.N o.	MACHIN E	CAPACITY	QT Y	YEAR
1	Air Plasma Cutting	25 mm Fine & 50 mm coarse	2 + 1	2008
2	Oxy-Acetylene Cutting (Manual)	100 MM	3	2008
3	Oxy-Acetylene Cutting (Pug M/c)	100 MM	2	2008
4	Sheet/Plate Shearing (Manual)	3 MM x 2500 MM	1	2007
5	Sheet/Plate Shearing (CNC)	3 MM x 2500 MM	1	2007

EDGE PREPARATION & GRINDING EQUIPMENT

S.N o	MACHIN E	MAKE	CAPACIT Y	QT Y	YEAR
1	Angle Grinder	Bosch	AG4	15	From 2008 to 2015
2	Angle Grinder	Bosch	AG7	15	From 2008 to 2015
3	Flexible Shaft Grinder	Mandakini	1 HP	2	2007
4	Mobile pipe cutter	Bosch	14"	3	2010
5	Pedestal Grinder		1 HP	1	2005
6	Edge Beveling Machine	EDPL		1	2009

WELDING MACHINES

S.N o.	MACHINE	MAKE	CAPACIT Y	QT Y	YEAR
1	Spot Welding	Nand Bajaj/ KEJE Electronics		2	2005
2	TIG Unit with HF with Calibrated Voltage & Amp Meter	Techpro	400 A	12	2006
4	Welding Generator	ADOR	250 A	1	2004
5	Welding Rectifier		400 A	12	2005 to 2010
6	Welding Transformer	ESAB/Techpro/ NRS	300 A	1	2007



		_			
7	Welding Transformer		350 A	4	From 2006 to 2010
8	OXY Acetylene Welding			2	2005
9	Welding Invertors	Megatronix/ Techpro	400A	4	2010 to 2012

OTHERS

	<u>UTHERS</u>							
S.N o.	MACHINE	MAKE	CAPACITY	QT Y	YEAR			
1	Plate/Sheet Bending	SURA	3 mm x 2.5 M	1	2002			
2	Plate/Sheet Bending (CNC)	HHPL	2 mm x 2.5 M	1	2012			
3	Sheet Punching Machine (CNC)	HHPL	Up to 2 thk.	1	2012			
4	Hydraulic Press	Global	200 Ton	1	2010			
5	Hydraulic Press	Global	500 Ton	1	2010			
6	Hydraulic Press	Global	100 Ton	1	2012			
7	Tank/Vessel Rotator	Global	5 Ton to 40 Ton	7	2011			
8	Air Compressor	ELGI		2	2009			
9	Air Compressor			1	2009			
10	Weighing Machine	Sun star		1	2007			
11	Electronic Tube Expander	Power Master		2	2010			
12	DM Water Plant	ION Exchange		1	2011			





MACHINE SHOP

S.No	MACHINE	MAKE	CAPACITY	QT Y	YEAR
1	Lathe Heavy Duty		12 Ft.	2	2005
2	Lathe Machine		8 Ft.	1	2003
4	Lathe Machine		6 Ft.	2	2004
5	Lathe Machine		4 Ft.	1	2004
6	Radial Drilling	Batliboi	48 MM	2	2010
7	Pedestal Drilling		20 MM	1	2010
8	Portable Drill	Kothari	20 MM	2	2011
9	Portable Drill	Kothari	13 MM	2	2011
10	Tool Room Grinder	Power PAC	0.75 HP	1	2010
11	Shapers	Surjit	з НР	1	2009
12	Power Saw	WAHCO	3 HP	2	2008
13	Plate Rolling Machine	SURA	45 mm Thk x 2500	1	2007
14	Plate Rolling Machine	Global	25 mm Thk x 2000	1	2006
15	Plate Rolling Machine	Global	10 mm Thk x 1500	1	2009
16	Milling Machine	RAINU	1000 mm Lg.	1	2010
17	Milling Machine	NIGATA	3000 mm Lg.	1	2005

HANDLING FACILITIES

S.No	MACHINE	MAKE	CAPACITY	QT Y	YEAR
1	Overhead Crane		5 Ton	2	2003
2	Overhead Crane		20 Ton	1	2004
3	Chain Pulley Block	INDEF/ MORRIS	1 Ton to 5 Tons	2	2007

CAPTIVE POWER GENERATION EQUIPMENT

S.No	MACHINE	MAKE	CAPACITY	QT Y	YEA R
1	D.G. Set	Kirloskar	67 KVA	2	2002
2	D.G. Set	Kirloskar	100 KVA	1	2007
3	Transformer	Patsar	250 KVA	1	1993

QC, TESTING AND MEASURING EQUIPMENTS

S.No	MACHINE	MAKE	CAPACITY	QT V	YEA
•				1	IV.



1	Hydro test Pump	Profession al Technolog y	450 Bar	1	2008
2	Hydro test Pump	Shakti	40 Bar	1	2007
3	Vacuum Pump			1	2007

QC, NON DESTRUCTIVE TEST AND MEASURING EQUIPMENTS

S.N o.	MACHINE	MAKE	CAPACITY	QT Y	YEA R
1	Radiography Viewer		Sigma Density 5	1	2009
2	Ultrasonic Thickness Gauge	Modson ic Ex 10	0.5 to 250 mm	1	2009
3	Dye Penetration Test Kit	Magnaflux		As requir ed	2011
4	DFT Meter	Mextech		1	2011
5	Lux Meter	НТС		1	2011
6	Sound Level meter	Work Zone		1	2011
7	Borescope	DB Power		1	2011
8	Clamp Meter	MECO	AC/DC	1	2010
9	Surface Temp. Indicator	Instronix	o – 250° C	2	2010



LIST OF CONSTRUCTION MACHINERY

A.		CONCRETING	EQUIPMENT		
Sl. No.	ITE M	MAKE	SIZE / CAPACITY	QTY	YEAR
1	Reversible Drum Type Concrete Mixer (Mini Mobile Batching Plant)	Gamzen Plast	9 cum./hr. (500 litre)	3 Nos.	2011
2	Reversible Drum Type Concrete Mixer (Mini Mobile Batching Plant) with Computerised printing facility	Gamzen Plast	15 cu.m./hr. (750 litre)	1 Nos.	2011
3	Needle Vibrator (Petrol/Elec.)	Killick Nixons, Jaypee	2 HP, 3 HP	10 Nos.	2011
4	Form Vibrator	Jaypee	3 НР	1 No.	2011
5	Table Vibrator	Jaypee	3 НР	1 No.	2011
6	Weigh Batcher	Road Master, Jaypee	Double Bucket	1 Nos.	2011
7	Builders Hoist (Diesel Operated)	Indo-German Industries	16 storey high	03 Nos.	2011
8	High speed pump for curing (Electric)	B.E., Wasp,	1 HP - 5 HP	02 Nos	2011
9	Submersible Pump	B.E., Wasp, Kirloskar	1 HP - 5 HP	02 Nos	2011
10	Bar Cutting Machine	Switech (India)	upto 40 mm dia.	2 Nos.	2011
11	Bar Bending Machine	Switech (India)	upto 36 mm dia.	1 No.	2011
12	Hammer Drill	BOSCH, Hitachi	Upto 12 mm,	2 Nos.	2011
13	Builder Hoist	Arrise	Upto 02 Ton	1 Nos.	2011
14	Tractor Mounted Loder	ABEL	Upto 01 Ton	1 Nos.	2011
В		FIELD LABO EQUIPI			
S. No.	ITE M		SIZE / CAPACITY	QTY	YEAR
1	Cube testing machine (Manually operated)		100 tonns, 120 tonns	10 Nos.	2011
	Cube testing machine (Electric	cally operated)	150 tonns	1 No.	2011
2	Cube Mould			30 Nos.	2011-20 12
3	I. S. Sieve (for fine aggregate)			5 Set	2011



4	I. S. Sieve (for coarse aggregate)		5 Set	2011
5	Vibrating Table		1 Nos	2013
6	Slump Cone		5 Nos	2011
7	Table Balance		2 Nos	2014
8	Electronic Weighing Balance	100 Kg.	1 Nos.	2013
9	Electric Oven		1 Nos	2011
10	Laboratory Hot Plate		1 Nos	2011
11	Rapid Moisture Meter		1 Nos	2011
12	Rebound Hammer		1 Nos	2011
13	Vicat's Apparatus		1 Set	2011





C	ELECTRICAL EQUIPMENT					
S. No.	ITE M	MA	KE	SIZE / CAPACITY	QTY	YEAR
1	Megger	WACO		0-500V	2 Nos	2015
		WACO		0-1000V	2 Nos	2015
2	Multimeter	WACO		660 V, 1 K Ohm, 800 A	3 Nos	2012
3	Tong Tester	WACO		0-400 A	2 Nos	2012
	(Clip on type)	Mastech		0-1000 A	2 Nos	2012
		CIE		0-1000 A	2 Nos	2012
4	Ammeter	WACO		0-400 A	1 No	2014
5	Ladder (Aluminium)			1.5 m	4 Nos	2014
				8 m	2 Nos	2014
6	Chase Cutting Machine	Bosch		Upto 6"	6 Nos	2014
7	Electrical wire drawing equipment	Local mak	e	Upto 25 sq.m.	2 Nos	2014
8	Torque Wrench (for nut, bolt and screws)	Taparia		5 Kg-m	3 Nos	2014
9	Conduit die set	Taparia		50 mm	1 No.	2014
		Local mak	æ	50 mm	2 Nos	2014
10	Pipe Vice	Local mak	æ		3 Nos	2014
11	Bench Vice	Local mak	æ		3 Nos	2014
12	Crimping Machine (Hand Operated)	Jainson		Upto 185 sq.m.	3 Nos	2015
13	Crimping Machine (Hydraulically Operated)	Mahindra		185 sq.m. and above	2 Nos	2015
14	Earth Tester	WACO		100 Ohm	2 Nos	2015
15	Drilling Machine (Portable)	Wolf		Upto 20 mm	6 Nos	2011-20 14
		Bosch		Upto 20 mm	8 Nos	2011-20 14
16	Overhead Conduit Puller	Local mak	æ	25 mm	2 Nos	2014
D.			<u>GENER</u>	ATOR .		
S. No.	ITEM	MAKE	SIZE ,	/ CAPACITY	QTY	YEAR
1	Diesel Generator Set	Mahind 63 KVA (4		A (440 Volt)	1 No	2012
2		Kirlosk 40 KVA		A (440 Volt)	1 No	2012
3		Kirlosk ar	20 KV	A (440 Volt)	1 No	2012
4		Kirlosk ar	10 KV	A (440 Volt)	1 No	2012



5	Kirlo	osk ar	7.5 KVA (440 Volt)	1 No	2012
E.	<u>V</u>	VORK	SHOP EQUIPMENT		
S. No.	ITE M		MAKE	QTY	YEAR
1	Welding machine (for General Purpose)		Sur Arc, Advani	02 Nos	2012
2	Saw machine		Janata	1 Nos	2013
3	Winch (Elec.)		IGI	1 Nos	2013
4	Concrete cutting machine		Benilal Aids	1 Nos	2014
6	Ratchet		Tirfon	02 Nos	2014



UNDER MENTIONED MACHINES ARE COMMON WITH OUR FACTORY

	CUTTING MACHINES							
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	EDGE PREPARATION & GRINDING EQUIPMENT								
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5	Pedestal Grinder		1 HP	1	2005				
6	Edge Beveling Machine	EDPL		1	2009				

		WELDING MACHINES			
S.N o.	MACHIN E	MAK E	CAPACITY	QT Y	YEAR
1	TIG Unit with HF with Calibrated Voltage & Amp Meter	Techpro	400 A	12	2006
2	Welding Generator	ADOR	250 A	1	2004
3	Welding Rectifier		400 A	12	2005 to 2010
4	Welding Transformer	ESAB/Techpro/ NRS	300 A	1	2007
5	Welding Transformer	TVICO	350 A	4	From 2006 to 2010
6	OXY Acetylene Welding			2	2005
7	Welding Invertors	Megatronix/ Techpro	400A	4	2010 to 2012



-	.N).	MACHINE	MAKE	CAPACITY	QTY	YEAR
	1	Tank/Vessel Rotator	Global	5 Ton to 40 Ton	7	2011

	MACHINE SHOP									
S.N o.	MACHINE	MAKE	CAPACITY	QTY	YEAR					
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	HANDLING FACILITIES							
S.No.	MACHINE	MAKE	CAPACITY	QTY	YEAR			
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S.No.	MACHINE	MAKE	CAPACITY	QTY	YEAR			
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3	Dye Penetration Test Kit	Magnaflux		As requir ed	2011			
4	DFT Meter	Mextech		1	2011			
5	Lux Meter	НТС		1	2011			
6	Sound Level meter	Work Zone		1	2011			
7	Borescope	DB Power		1	2011			
8	Clamp Meter	MECO	AC/DC	1	2010			
9	Surface Temp. Indicator	Instronix	0 – 250° C	2	2010			

DESIGN

Our CAD design office can generate as many drawings as are sufficient for your approval, inspection or manufacture.

Our Design Services include:-

- > Detailed Engineering,
- > Cutting and Development Plan, Calculation of Bills Of Material,
- > Calculation of Material Procurement Summaries,
- > Weld-ment details,
- Radiography Plan, etc.

We can handle all 3rd party approval and certifications.

DESIGN CODES

Our Products can be designed, built and inspected to a variety of codes, including: ASME, BIS, DIN, IS and most other well known specifications. We use latest ASME code books.

Codes available in House

- ASME Section II
 - (1) Part A Ferrous Material Specifications
 - (2) Part C Specification for welding Rods, Electrodes and Filler Metals
- ASME Section III
 - (1) Division 1 Subsection NB Class 1 Components



Subsection NC Class 2 Components Appendices

- ASME Section V Nondestructive Examination
- ASME Section VIII Rules for Construction of Pressure Vessels.
 - (1) Division 1
 - (2) Division 2 Alternative Rules
- ASME Section IX Welding and Brazing Qualifications.
- IS 2825 Code for Unfired Pressure Vessels (BIS)
- IS 2102 General Dimensional Tolerance
- ASME B16.5 Pipe Flanges and Flanged Fittings



- PFI Standard ES-24, Pipe bending tolerance-Minimum bending Radii-minimum tangent
- TEMA (Tubular Exchanger Manufacturing Association.
- Process Equipment Design, Lloyd E. Brownell and Edwin H. Young.
- Pressure Vessel Design Handbook, Henry H. Bednar
- Pressure Vessel Handbook, Eugene F. Megyesy
- Pressure Vessel Design Manual, Dennis Moss
- Guide Book for Design of Section VIII Pressure Vessels, James R. Farr and Mann H. Jawad.

NOTE:

We maintain lot of latest scientific /technical papers related to above pressure vessels published in various journals and conference proceedings.

QUALITY ORGANIZATION POLICY

"We strive to achieve customer satisfaction by delivering high quality goods to governing specifications and within stipulated delivery schedules."

CERTIFICATION

We are an ISO 9001:2008, 14001:2004, 18001:2007 Certified Company. Our Quality Management System is currently under improvement for approval by Lloyds Register Quality Assurance.

SYSTEM

To ensure that these demands are met in an efficient and cost effective manner, the company has developed a quality management system "QMS" which complies with both the requirements of ASME, BS & IS Code.

All sub suppliers and vendors are selected on their ability to meet the technical and commercial requirements of the project together with meeting the quality requirements of GLOBAL Engineers.

Potential new suppliers are audited or questioned (via a quality questionnaire) before orders can be placed upon them, whilst existing approved suppliers are regularly audited / questioned by our quality department to monitor their compliance with their quality system.

Qualification & upgrading of welders for materials, positions and electrodes and adherence to the same.

INSPECTION

Stage Inspection during Fabrication:

The Inspection Engineer/Manager is the designated quality representative and has the authority and responsibility for ensuring that the requirement of the quality system are adhered to and are effective. He is offered full support and freedom of action to perform his duties effectively.

Regardless of hold points & Witness Points, indicated by external inspection agency 100% stage inspection is done by our inspector as under.

- 1. Identification of materials with co-relating certificates/check test and stamp transfer (Chemical & Mechanical testing from NABL approved or Govt Approved Lab).
- 2. WPS, PQR & WPQ Preparation & Performance
- 3. Edge preparation and fit ups
- 4. Root run, back chip & grind
- 5. Heat Treatment i.e. Pre Heating, PWHT, SR, Normalizing etc.(Wherever applicable)
- 6. D.P. Test
- 7. Radiography/UT/MPT
- 8. Pneumatic test of pad
- 9. Hydro Test



- 10. HLT (Wherever applicable)
- 11. Dimension check of complete job
- 12. Functional check (wherever possible)

FINISH

Within house Pickling & Passivation and Paint Spray facilities, Internal and External finishes to specific BS/EN/ISO standards are common practice. Galvanising, Epoxy Resin and other finishes can be provided on request.

DOCUMENTATION

Complete documentation of projects from starting to dispatch :-

Material Test Report & History sheet, All NDT Reports & Records, Welding reports & Records, Procedures i.e. NDT, Welding & Manufacturing, Final Test documentation i.e. Visual, Dimension, Hydro Test, Pneumatic Test, HLT, Pickling & Passivation, Painting, Nitrogen Filling & Packing, Instrument Calibration, etc.

OUR SERVICES

Design and detailed engineering of plants and equipment; Manufacturing and supply; Installation and Commissioning at site and Training and Maintenance

Qualified Procedures and welders for SAW, GMAW, GTAW and SMAW processes are utilized all in accordance with ASME code Section IX and AWS. Radiographic and other nondestructive examinations are conducted by personnel qualified in accordance with ASME code requirements. Production welding is inspected by certified inspectors.

Design calculations and detailed fabrication drawings are prepared by our engineering department to comply with various codes and customer specifications. Besides using Industry standard software, we have developed our own applications such as:-

- > PV Elite for ASME Pressure Vessel Design
- > Auto CAD for general drafting
- > Solid Works for 3D modeling and FEA analysis
- > Weld Office from C-Spec software for WPS, WPO, PQR, Welder data base, etc.

Full Certification / Documentation for Conformity, Material Test, Radiography tests, Hydraulic tests, Weld procedures, Weld tests, Instrument Calibration, etc. is normally provided by us upon request.

AWARDS

GEL has bagged the prestigious award "IEI Industry Excellence Award 2015" from Institution of Engineers India in December 2015 for Manufacturing & Processing

National Award for Quality & Productivity from the honorable President of India, in recognition of our performance in 1986 in the Engineering Sector.

National Award for Entrepreneurship from the honorable President of India, in recognition of our performance in 1986 in the Engineering Sector

State Award by the Delhi Administration in 1986, 1987, 1988, 1991 and 1999 from the honorable Lt. Governor of New Delhi.





District Level Award - Special prize: by the Delhi Administration for year 1988.

We are also awarded with "The most preferred supplier of McDowell & Co. the UB Group" Award from India's No. 1 liquor manufacturer, the UB Group for supply of plants and machinery to their distilleries and breweries in India and Nepal.







LOCATIONS

Office

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