

Dear Sir / Madam,

Over 40 years, we have witnessed, adopted and experienced the technological advancements across industries to become one of the most admired Heavy Engineering companies in India. With core competence in manufacturing Pressure Vessels, Industrial Process Equipment and Critical Metal Fabrication Works, we have catered to multiple sectors such as Cement, Power, Ore Benefaction, Nuclear, Chemical, Petrochemical, Oil & Gas and so on.

With an ISO 9001 compliant management and production standards approved by several institutions such as ASME for U-Stamp, Indian Boiler Regulations and Petroleum & Explosives Safety Organization; we strive further to set new benchmarks in the industry.

Among industrial process equipment projects, our portfolio includes Expansion Vessels, Adsorption Columns, Reactors, Heat Exchangers, Convertors, Bowl Mills, Circulation Tanks and Rotary Equipment such as Pulverizing Mills, Kilns, Driers, Roasters and Globe Digesters. Having successfully completed several turnkey projects for process plants, today we hold a reputation of an Original Equipment Manufacturer among several industry leaders such as Vedanta Group, Claudius Peters, JSW Steel and others.

Many companies have benefitted from our competent production facility, which is well established to house end to end manufacturing operations with profile cutting, rolling, forming, fabrication, machining and assembly. Most of our clients have appreciated our service and recently Vedanta Group awarded us for On Time Delivery and Proactive Vendor Participation. Earlier media reported us as the first and only Indian SME to fabricate prototype and commercial use nuclear safety vessels for India's first fast breeder nuclear reactor. Several international organizations have accredited us for our technological advancements.

Our products are designed using high-end software Viz. PV Elite, HTRI, CAD tools. Recently we have enhanced our facility with a clean room & special handling for EXOTIC Metals, Viz. Titanium, Tantalum, Zirconium, Nickel, Monel, Inconel, Hastelloy, Nimonics and others.

We appreciate your business and look forward to for the opportunity to work with you. In case you have any queries or need any further details please feel free to get back.

PS:Company Details, List of Equipment Manufactured, List of Major Orders List of Equipment in our facility and Maximum Job size handled.

Yours Faithfully, - -Sakthivel Ramaswamy Managing Director + 91 994 016 9024 | sakthivel@krr.co.in



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Company Details

•	ering Private Limited battur Industrial Estate	Factory KRR Engineering No. 06 Vanagaram Ayanambakkam Chennai, IN PIN - 600 095	
Telephone N Fax Number	lumber: +91 44 2688 0210 / ( : +91 44 2688 0370	0738 / 0684	
Website	<u>www.krr.co.in</u> <u>www.pressurevessel.co.in</u>	Contact for priority response	Mr.Krishna Kumar B Manager +91 8754495185
Email	<u>contact@krr.co.in</u> <u>sales@krr.co.in</u> <u>enquiry@krr.co.in</u> <u>smd@krr.co.in</u>		Krishna@krr.co.in
	rials Handled ucts / Equipment ed	Ref Pg. No. 4 Ref Pg. No. 6	
Type of Hold	ling: Private Limited	Date of Incorporat	ion: 9 <sup>th</sup> Feb 1989
Bank Details State Bank o SME Ambattu Ambattur Indu Chennai, IN	of India r Branch	Tax & Duties PAN No AAACk GST No 33AAA	
Turnover in	Lakhs		

2015 - 2016 INR 1312.07 2016 - 2017 INR 2032.50 2017 - 2018 INR 2138.37

Bank Credit Limit: INR 1650 Lakhs

Asset Value (31/6/2018): INR 591 Lakhs

Organisation Structure: Ref Pg. No. 8



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# Design & Engineering

Software Used	PV Elite, AutoCAD, HTRI, MS Office Suite, MS Project,
	Google Apps for Business, Adobe Illustrator
Standards & Codes	ASME – Section VIII (Division 1), Section II (Part A, B, C,
Followed	D), Section V, Section IX, B 16.11, B 16.5, SMPV Rules, IS
	1893 (Part 1), ASNT, AD2000Merkblatt, PED- CE, PD 5500,
	API 650
	Ref Pg. No. 9

## Production

Production Facility	160,000 SQ Ft (Total)	65,000 SQ Ft (Covered)
(Area)	Press Shop	20,000 SQ Ft
	Machine Shop	10,000 SQ Ft
	Assembly Shop	30,000 SQ Ft
	Clean Room	5,000 SQ Ft
Machinery & Equipment	Ref Pg. No. 11	
Certifications	ISO 9001:2008	
	ASME – 'U' Stamp (since	2009)
	ASME – 'S' Stamp	
	PESO (CCOE) – Petroleum	and Explosives Safety
	Organisation	
	IBR – Indian Boiler Regulat	tions

## Quality

Material Testing	Ref Pg. No. 14
Facilities Available	
Type of Tests	Radiography, Ultrasonic Test, Dye Penetrant, Magnetic
Conducted	Particle Test, Hydro Test, Pneumatic Test, DFT Coat
	Measure, Ultrasonic Thickness Gauge
List of QC Records	Ref Pg. No. 15
Maintained	

#### Experience

Major Orders Executed	Ref Pg. No. 16
(2011 – 2016)	
Max Job Size Handled	Ref Pg. No. 21



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# List of Material Handled

#### Metallic Materials

No	Product Name	Grades Remarks	
1	Mild Steel	IS 2062; ASME A 283 Gr C, Fe410	
2	Carbon Steel	All Grades and Alloys of Carbon Steel as Covered in ASME and Indian Standards	Including LTCS – 1.25Cr/0.5Mo, C-0.5Mo, Cr-Mo, Nace and HIC Quality
3	Stainless Steel	All Grades and Alloys of Carbon Steel as Covered in ASME and Indian Standards	
4	Duplex Steel	S31803, S32205 Grades	
5	Super Duplex Steel	S32705, S2507 Grades	
6	Super Austentic Steel	SMO 254, SS 904L, Alloy 20, 28, 31 and any other grades of Stainless Steel as Patented by International Stainless Steel Manufacturers	Stainless Steel having high content of Molybdenum, Nickel & Chromium are also covered in this
7	Nickel	Nickel 200 & 201 Grade	
8	Monel	Monel 400 Grade	Alloys of Nickel – Copper
9	Inconel	Inconel 600, 625, 800, 825, 800H Nickel Alloys with High Ferrous Con	
10	Hastelloy	C276, C22, C4, C2000, B2, B3 Grades	Alloys of Nickel with Cobalt & Molybdenum
11	Titanium	Grade 2, Grade 7, Grade 12, Grade 16	
12	Tantalum	Unalloyed Tantalum and Tantalum – Tungsten Alloying	



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List of Material Handled

#### Non - Metallic Materials

No	Product Name	Grades	Remarks
1	Fiber Reinforced Plastic (FRP) – Made Products	Vinyl Ester Resins, Epoxy Resins, BIS – Phenol Resins	
2	FRP Lining on any Metallic Product	Vinyl Ester Resins, Epoxy Resins, BIS – Phenol Resins	
3	Epoxy Coatings	HBE, Glass Flake Linings, Phenolic on Internal Surfaces	
4	Rubber Lining on all Metal Products	Natural Hard Rubber, Ebonite Rubber, Compounded Layers	
5	Brick Lining on all Metal Products	Fire / Heat Proofing, Acid Proofing	



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# List of Equipment Manufactured

Product Groups	Туре	Grades	
Pressure Vessels	Pressure Vessels Horizontal & Vertical; Flat, Conical, Hemispherical, Ellipsoidal, Tori- Conical, Tori spherical, etc heads		
Heat Exchangers	Fixed Tube Sheet, Floating Tube Sheet, U – Tube type, Expansion Joints, Steam Chambers with Volute	Various Combination of Metals in Shell Side and Tube Side	
Columns & Towers	Adsorption Towers, Absorption Towers, Separators, Cyclones	Single Piece transport up to 60 M	
Storage Bullets	LPG, Butane, Propylene	Pedal and Mounted Bullets	
Storage Tanks	Chemical Storage Tanks with all Metallurgy	Rubber & Epoxy Lined, Titanium & Special Steel Lined	
Autoclaves – Reactors – Reaction VesselsRubber Lined Autoclaves, Stainless Steel and Exotic Metal Alloy Reaction Vessel		High Temperature & Pressure Services with Metals such as Titanium, Hastelloy, etc	
Digesters	Rotary Globe Digesters (Spherical & Elliptical)	Including Drive Arrangement, Girth Gear,	
Kilns	Rotary Kilns for Cement and Ore Processing	Riding Ring, Pinion, Motor Gear Box, Support Rollers, Thrust Rollers, Spares for	
Driers	Rotary Driers with Inner Lifters and Arrangements	All Rotary Components	
Calciner with Cooler	Rotary with Air or Water Cooling Arrangement		
Flash Drums	Flash Drums High Pressure and Low Pressure Flash Drums		
Silos and Chimney			
Furnace & Converter	Rotary Furnaces (Anode), ISA Smelt Furnaces; Electric ARC Furnace & Molten Metal Converters with Tilting Arrangement (Turn Iron Ring)	All Grades and Alloys of Carbon Steel as Covered in ASME and Indian Standards	



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Product Groups	Туре	Grades
Coils	Helical, Spiral	Titanium & Other Exotic Metal Alloys
Bowl Mills & Pulverisers		
Classifiers	Dynamic & Static	
Boiler Components	Boiler Drums & Cover Plates	
Material Handling Equipment	Conveyer Booms, Structural, Chutes	Titanium Chutes, Venturi for ARP Plant
ARP Components in Metal & Steel Processing Units	Exotic Metal Components such as Acid Lance, Cyclone Separator, Chutes, Fastners, Machined Components	Titanium Gr 7 and Tantalum Metal Products
Jigs & Fixtures	Jigs & Fixtures for Anodizing Components with Titanium. Jigs for Critical Measuring Components	Specialized in Design and Manufacture Jobs
Heavy Fabricated Engineering Components	Special types of Forming, Machining and Fabrication Activities within our range of materials handled	
Dished Ends	Hemispherical, Tori-spherical, Conical, Ellipsoidal, Tori-Conical	Up to 15 M Dia and 100 MM Thk in Petals
Wind Mill Components	Wind Mill Support, Gear Box, Rotor Housing, etc	



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Organisation Structure

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#### Standards & Codes Followed

Sr. No	Standar d	Sub Category / Sec	Title / Application	
1	ASME	Section VIII Division 1	Rules for Construction of Pressure Vessels	
2	ASME	Section II Part A	Materials - Ferrous Material Specifications	
3	ASME	Section II Part B	Materials - Nonferrous Material Specifications	
4	ASME	Section II Part C	Materials - Specifications for Welding Rods, Electrodes and Filler Metals	
5	ASME	Section II Part D	Materials Properties	
6	ASME	Section V	Non-destructive Examination	
7	ASME	Section IX	Welding and Brazing Qualifications	
8	ASME	B16.11	Forged fittings, Socket-welding and Threaded	
9	ASME	B16.5	Pipe Flanges and Flanged Fittings	
10	IS	1893 (Part-1)	Criteria for Earth Quake Resistant Design of Structures	
11	IS	1893 (Part-2)	Code of Practice for Design Loads (Other Than Earth Quake) for Buildings and Structures	
12	ASNT	NA	Recommended practice no. SNT-TC-1A	
13		NA	Pressure Vessel hand book - Eugene F. Megyesy	
14	TEMA	NA	Tubular Exchanger Manufacturers Association	
15	ISO	9606 (Part-1)	Qualification Test of Welders	
16	ISO	5817	Welding – Quality Level of Imperfections	
18	ISO	15608	Welding – Metallic Materials Grouping System	
18	ISO	15614	Specification and Qualification of Welding Procedures	
19	ISO	13920	General Tolerance for Welding Construction	
20	ISO	287-1	Qualification Test of Welders	
21	IS	1030	Carbon Steel Casting	
22	IS	2062	Specification for Hot Rolled Medium and High Tensile Structural Steel	
23	NBIC	Part 1, 2 and 3	Guidelines for Installation, Inspection, Repairs and Alterations for Boilers and Pressure Vessels	



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Sr. No	Standar d	Sub Category / Sec	Title / Application
24	PD	5500	Specification for unfired, fusion welded pressure vessels for rules for the design, fabrication and inspection
25	SMPV	Chapter I	Preliminary
26		Chapter II	Construction and Fitments of Pressure Vessels
27		Chapter III	Storage
28		Chapter IV	Transport
29		Chapter V	Licences
30		Chapter VI	Exemption
31		Chapter VII	Accidents & Injuries
32		Chapter VIII	Powers
33	PED	97/23/EC	Conformity to European Council
34	API	650	Specification for material, design, fabrication, erection, and inspection for vertical, cylindrical, closed- and open-top, welded storage tanks for internal pressures approximating atmospheric pressure



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List of Equipment in our Manufacturing Facility

# Pressing Equipment

N o	Equipment	Table Size	Capacity	Daylight Range
1	Hydraulic Press Fielding & Platt International - UK	3800 * 3800 mm	4000 Ton	2900 - 1000 mm
2	Hydraulic Press Fielding & Platt International - UK	3000 * 2800 mm	1000 Ton	1900 - 1000 mm
3	Hydraulic Press I n-house Development	1000 * 4000 mm	2000 Ton	1000 - 300 mm
4	Hydraulic Press Bemco - India	2000 * 2000 mm	750 Ton	2000 - 1000 mm

## Plate Rolling Equipment

No	Equipment	Plate Width	Cold Roll	Hot Roll
1	Plate Bending Machine - Himalaya	3000 mm	50 mm	80 mm
2	Plate Bending Machine - In-house Development	2500 mm	80 mm	120 mm
3	Plate Bending Machine - In-house Development	2000 mm	32 mm	NA

# **Cutting Equipment**

N o	Equipment	Bed Size	Max Cutting Thickness	Special Features
1	CNC ProfileCutting Messer - Germany	4100 * 16000 mm	300 mm	Powder Marking Unit Nesting Software
2	Air Plasma Cutting Hypertherm - USA	NA	45 mm	Machine Torch Carriage

## Welding Equipment

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No	Equipment	Spec	No
1	Sub Arc Welding - Lincoln Electric USA	1200 A	1
2	Column and Boom Welder - Prima Automation	1200 A	1



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#### Welding Equipment

No	Equipment	Spec	No
3	MIG Welding Set - ESAB Sweden	60 - 600 A	6
4	TIG Welding Set - Lincoln Electric USA	2 - 340 A	2
5	Welding Rectifiers - ESAB Sweden	NA	22

#### Machining Equipment

No	Equipment			
1	Horizontal Boring Machine - DRO Attached Spindle Diameter 160 mm SchiessFroriep - Germany	X Axis Y Axis Z Axis	8250 mm 3500 mm 2250 mm	Turn Table 1700 * 1700 mm 10 ton
2	Horizontal Boring Machine - DRO Attached Spindle Diameter 150 mm Collet - Germany	X Axis Y Axis Z Axis	4000 mm 2000 mm 800 mm	Turn Table 1800 * 2700 mm 10 ton
3	Vertical Turret Lathe - DRO Attached SchiessFroriep - Germany	Chuck Dia Max Height Swing	3500 mm 2800 mm 4200 mm	Weight Capacity 25 tons
4	Vertical Turret Lathe Craven - England	Chuck Dia Max Height Swing	2400 mm 550 mm 2750 mm	
5	Vertical Turret Lathe Nema - England	Check Dia Max Height Swing	1500 mm 750 mm 1575 mm	
6	Centre Lathe Shimoga - India	Check Dia Bed Length Centre Adjust Swing	300 mm 2500 mm 1900 mm 455 mm	
7	Heavy Duty Centre Lathe Stanley - UK	Chuck Dia Bed Length Center Adjust Swing	800 mm 4000 mm 2800 mm 1000 mm	
8	Universal Radial Drilling Asquith - Czechoslovakia	Max Drill Dia Arm Length	62 mm 1000 mm	
9	Radial Drilling HMT – India	Max Drill Dia Arm Length	65 mm 1200 mm	
10	Radial Drilling SASS – Italy	Max Drill Dia Arm Length	100 mm 1950 mm	



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Machining Equipment

Nc	Equipment		
11	VerticalMilling Spindle Diameter 170 mm	Bed Size	W 600 mm L 2000 mm H 600 mm
12	BevellingMachine Cevisa – Spain	Thickness Angle	5 - 45 mm 25 - 45 Deg

#### Handling Equipment

No	Equipment	Spec	No
1	EOT Crane	40 Ton	1
2	EOT Crane	30 Ton	2
3	EOT Crane	15 Ton	6
4	EOT Crane	10 Ton	4
5	Mobile Crane (Hydra)	11 Ton	1
6	Mobile Gantry with Electrical Hoist	20 Ton	1
7	Mono Rail with Electrical Hoist	5 Ton	1
8	Mono Rail with Electrical Hoist	3 Ton	1
9	Mono Rail with Electrical Hoist	2 Ton	1

Complete Range of portable tools including: Pug cutting sets, Manual gas cutting sets, Quivers, Grinders, Sanders, Electrode Ovens, Electrode Holding Flasks, Pre Heating Torches and so on.

Standby Power

No	Equipment	Capacity	Nos
1	DG Set - Kirloskar	160 kVA	1
2	DG Set - Kirloskar	125 kVA	1
3	DG Set - Kirloskar	110 kVA	2



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## Material Testing Facilities Available

On Site Tests	Chemical Tests	Metallography Tests	Corrosion Testing
Positive Material Identification	Iron Base & Cast Irons	Macro and Micro Structure Evaluation	Inter Granular Corrosion Test
Portable Hardness Testing	Carbon Alloy Steel & Low Alloy Steel	Heat Treatment Condition and Weld Evaluations	Pitting and Crevice Corrosion Test
Coating Thickness Measurement	Cobalt & Nickel Base	Grain flow and Grain Size Test	Cyclones, Scrubbers, Separators & Hoppers
In-Situ Metallography	Stainless Steel & Duplex Stainless Steel	Plating and Coating Thickness Measurement	Evaluation of Intermetallic Detrimental Phases
Ferrite Content Measurement	Manganese Steel & Micro Alloy Steel	Micro Hardness and Porosity Test	Chloride & Sulphide Stress Corrosion Cracking
Surface Roughness Measurement	Aluminium Base & Titanium Base	Ferrite Content Measurement	Salt Spray and Mercurous Nitrate Test
Phenanthroline Testing	Ni Resist and Copper Base	Case Depth and Nitrified Depth Measurement	Hydrogen Induced Cracking Test
		Decarburization Test	Coating Mass and Thickness Measurement
		Ferroxyl Testing	

Other Mechanical Testing facilities include:

- Compression and Tensile Strength Test •
- Impact Test (Charpy and Izod) •
- Hardness Test (Rockwell, Brinell, Superficial and Vickers)
- Bend Test (Rebend, Root, Face and Side bend) •
- Compression, Flaring / Flattening Test •
- Fasteners Test (Proof Load, Wedge Test and Axial Tensile Test) •



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#### List of QC Records Maintained

Sr. No	Description	Duration in Years
1	Manufacturer's Data Report	3
2	Manufacturer's Partial Data Report (Received and Issued)	3
3	Final as- built drawings and design calculations	3
4	Completed Quality Plan with Signoff by the Authorized Inspector and designated personnel of KRR Engineering Private Limited	3
5	Material Traceability Record (This contains parts list in sequential order). Material Certifications and Material Test Reports, and a record of any repair along with repair procedure as required. The material documentation is compiled in the same order as the parts list for easy access.	3
6	Pressure parts documentation and certification	3
7	Heat treatment instruction sheet, heat treatment chart	3
8	List of subcontracted services and associated details	3
9	Welding Procedure Specifications (WPS), Procedure Qualification Records (PQR), Weld Map and Welder(s) or Welding operator(s) qualification records, Who welded on the vessel/Part	3
10	Results of production test plates, if applicable	3
11	NDE procedures, records of procedure qualification, and records of personnel demonstrations	3
12	NDE reports for radiographic, ultrasonic, magnetic particle and liquid penetrant examination	3
13	Stage Inspection Reports	3
14	All non-conformance reports including resolution and a detailed description of any repairs including, repair procedures, a sketch, photo, or drawing indicating the location and size of the repaired area	3
15	Pressure test reports. Pneumatic test of reinforcement pads. Proof test reports (if applicable)	3
16	Dimensional report of completed vessel or as-built drawings, if applicable	3
18	Radiograph films	Till certification of MDR / MPDR



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Sr. No	Date	Equipment / I tem Description	Quantity / No
1	09.10.2018	Expansion Tank	01 NO
2	11.08.2018	Ducting for Sewaran Plant 7, NJ, USA	01 Lot
3	19.07.2018	<ol> <li>1571 Co2 Product Cooler</li> <li>1573 Ammonia Cooler</li> <li>1584 Sgc Suction Gas Chiller</li> </ol>	EACH 01 No
4	04.06.2018	Humidifier Bubble Column De-Humudifier Bubble Column Duct Works Supporting Components Painting	EACH 02 NOS.
5	12.05.2018	<ol> <li>Chilled Water Storage Tanks</li> <li>Radial Disc Type Diffusers</li> </ol>	EACH 2 SETS
6	03.05.2018	Air Receiver, 1000 Litre, 30 Bar	01 NO
7	07.03.2018	Trench And Cover For Kia Motors India Project	135 MT
8	05.03.2018	Tanks For Kia Motors India Project	106 MT
9	28.02.2018	Nitrogen Reservoirs	02 Nos.
10	05.01.2018	Air Receiver	01 NO
11	31.07.2017	Ducting Items for PSEG COEYMANS NY, USA PROJECT	01 Lot
12	18.07.2017	50mt Bullet	01 NO.
13	16.05.2017	Evaporation Process Equipment	01 LOT
14	27.04.2017	SKID	03 Nos.
15	30.01.2017	Primary Pie for Technology Development	01 No
16	24.11.2016	<ol> <li>IG 3rd Intercooler Assembly</li> <li>IG 1st Intercooler Assembly</li> </ol>	Each 1 no
17	26.09.2016	<ol> <li>III IG Compressor 1st Stage Intercooler Assembly</li> <li>III IG Compressor 2nd Stage Intercooler Assembly</li> <li>III IG Compressor 3rd Stage Intercooler Assembly</li> </ol>	Each 1 no
18	18.01.2016	Paddle Agitator Shaft – ASME – 'U' Stamp 670 Dia X 10000 Length X 75 Thk	02Nos.



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Sr. No	Date	Equipment / I tem Description	Quantity / No
19	13.01.2016	Kiln Shells 3400 Dia X 4000 Length X 50 Thk	01No.
20	06.01.2016	Roaster Stack	01 No.
21	15.02.2015	Pressure Vessels – PESO Approved 1900 Dia X 6000 Length X 22 Thk	01 No.
22	30.11.2015	Liquid Chlorine Storage Tank 2600 Dia X 6150 Length X 22 Thk	01 No.
23	14.11.2015	Return Acid Seal Tank Super Duplex Steel & Rubber Lining	03 Nos.
24	18.10.2015	Cyclone Separator	01 No.
25	25.09.2015	Fluorine Scrubbing Tower 4000 Dia X 9400 Length X 12 Thk	01 No.
26	22.09.2015	Process Vessels	02Nos.
27	31.08. 2015	Converter	01 Nos.
28	31.08. 2015	Coal Pulverising Mill with all Accessories	16 No.
29	31.08. 2015	Droplet Separator Vessel	01 Nos.
30	26.08. 2015	Air Receiver Tank ASME – 'U' Stamp Job	01 Nos.
31	29.07. 2015	Waste Solid Cyclone 4042 Dia X 10675 Length X 40 Thk	02Nos.
32	16.07. 2015	Vaccuum Crystalizer 3600 Dia X 9000 Length	03 No.
33	02.07. 2015	Thrust Roller Assembly	01 No.
34	02.07. 2015	Hub & Ring Assembly 8000 MM Dia	01 No.
35	02.07. 2015	Tuyere Cooler Holder and Tap Hole Nozzle P285 Grade	22Nos.
36	15.06. 2015	Cone with Vanes	01 Nos.
37	12.06. 2015	Evaporator Flash Chamber Fluorine Scrubbing Tower 4000 Dia X 9400 Length X 12 Thk	01 No. 01 No.
38	09.06. 2015	Back Panels	06 No.



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Sr. No	Date	Equipment / Item Description	Quantity / No
39	03.06. 2015	Distributor Plate for Chlorinator	01 No.
40	01.06. 2015	Shells 1370 Dia X 2500 Length X 80 Thk	04Nos.
41	01.06. 2015	COWL Shell	01 Nos.
42	01.06. 2015	Half Ring Covers (Turbine Covers)	16 No.
43	18.05. 2015	L&R Transition Panels	01 Nos.
44	16.05. 2015	Receiver & Distributor SS904L and Super Duplex	5 Nos.
45	30.04. 2015	Iron notch and Tie Rod	06 No.
46	29.04. 2015	Wear Plates for Seals	04 No.
47	18.04. 2015	Supply of 5L Panels	02 No.
48	18.04. 2015	Converter Plates	12 Nos.
49	18.02. 2015	Windmill Rotor Housing 4600 Dia X 23469 Length X 32 Thk	15 Nos.
50	90.01. 2015	Rotary Anode Furnace with Accessories and Installation Outer diameter 3900 mm X 10660 mm long X 40 mm thk.	01 Nos.
51	31.12. 2014	Water Cooled Hood Transition Panel 3960 Width X 1751Height X 20 Thk	03 Sets
52	02.12. 2014	Return Acid Seal Tank, Alloy S32750 2568 Dia X 2200 Height X 6 Thk	01 No.
53	04.10. 2014	Furnace Converter with Sub Assembly 4042 Dia X 10675 Length X 40 Thk	01 Set
54	09.07. 2014	Falling Film Evaporator 24100 MM Long	01 No.
55	02.07. 2014	Stove Dome with Manhole Assembly Profile Plate for Stove Dome	3 Sets 39 Nos.
56	09.07. 2014	Rotary Globe Digester 6096 Dia X 8000 Height X 32 Thk	02 Nos.
57	13.06. 2014	Man Holes	11 Nos.
58	25.06. 2014	Top Chute Maintenance Door	01 No.



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Sr. No	Date	Equipment / Item Description	Quantity / No
59	29.04. 2013	Goose Neck Panel Assembly 2000 Width X 23000 Length X 20 Thk	01 Set.
60	15.10. 2013	Furnace Converter with Sub Assembly 3962 Dia X 8990 Length X 40 Thk	01 Set.
61	19.09. 2013	Goose Neck Panel Assembly 2000 Width X 23000 Length X 20 Thk	01 Set.
62	27.08. 2013	Top Cone Assembly	01 No.
63	04.03. 2013	AHX Chimneys (Cooling Towers) 7700 Dia X 110000 Height X 40Thk	03 Nos.
64	04.03. 2013	Upper Railway Assembly, Gangway Assembly, Bracket Assembly	01 Lot
65	28.02. 2013	Rotary Globe Digester 6096 Dia X 8000 Height X 32 Thk	01 No.
66	05.12. 2012	UtoxCalciner and Cooler 1392 Dia X 18012 Length X 16 Thk	01 No.
67	01.09. 2012	Supply and Erection of Converter Shell 4042 mm Od * 8.5 M long * 40 mm thk.	01 No.
68	17.08. 2012	Design and Fabrication of Dished Ends with all Nozzles & Attachments	08 Nos.
69	24.07. 2012	Nitrogen Tank & Purge Gas Tank 4600 Dia X 23469 Length X 32 Thk	03 Nos.
70	03.07. 2012	Expansion Vessels Outer diameter 3200 mm X 29500 mm long X 25 mm thk.	04 Nos.
71	15.06. 2012	Goose Neck Panel Assembly 2000 Width X 23000 Length X 20 Thk	2 Sets
72	05.06. 2012	Anode Furnace & Accessories 3962 Dia X 10668 Length X 40 Thk Slag Cleaning Furnace & Accessories 3962 Dia X 8990 Length X 40 Thk	01 No. 01 No.
73	20.04. 2012	Droplet Duct, 2nd Stage Scrubber Droplet Separator Vessel	01 No. 01 No. 01 No.
74	06.03. 2012	Fabrication of Pressure Vessel 4200Dia. X 8650LG. X 18Thk Test Pressure (8.75 Kg/cm2)	02 Nos.
75	03.03. 2012	Mill Side Housing and Base 3150 Dia X 2000 Length X 32 Thk	12 Nos.
76	12.12. 2011	Manufacture & Supply of Dished End with All Attachments Dished End Id 2998 mm, 7200mm, 4700mm	



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Sr. No	Date	Equipment / Item Description	Quantity / No
77	16.11. 2011	Rotary Globe Digester 6096 Dia X 8000 Height X 32 Thk	01 Set
78	13.06. 2011	Manufacture and Supply of Kiln Shell 3000 Id * 7500 long * 25 thk.	01 No.
79	10.06. 2011	Manufacture and Supply of Kiln Shell Id 4550 * 8100 long * 25/36 mm thk.	01 No.
80	02.06. 2011	Supply of Converter 4700 Dia X 2732 Height X 80 Thk	01 Set
81	26.04. 2011	Supply of Segment ' 0' Assembly for 20 mm Slab Caster	01 Set
82	23.05. 2011	Manufacture and Supply of Kiln Shells 4200 Id * 6940 mm long, 4220 mm long, 4670mm long	03 No.
83	22.04. 2011	Fabrication, Machining, Drilling and Supply of Id 2400 mm * 9000 mm long * 32 mm thk.	01 No.
84	12.03. 2011	Manufacture and Supply of Panels	08 Nos.
85	19.01. 2011	Fabrication and Supply of Main Frame Welded & Rotor Welded	13 Nos.
86	13.01.2011	Fabrication and Supply of Drying Chamber and Accessories	01 No.
87	06.01.2011	Fabrication of Pressure Vessel 4200 Dia X 8650 Length X 18 Thk - Test Pressure (8.75 Kg/cm2)	04 Nos.



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#### Maximum Job Size Handled

Sr. No	Item / Equipment	I tem Description
1	*Butane Storage Bullets (Pressure Vessels)	Outer diameter5000 mm X 30000 mmlong X 32 mmthk (120 Ton)
2	*Expansion Vessel	Outer diameter3200 mm X 29500 mmlong X 25 mmthk.
3	Converter with Assembly	Outer diameter4700 mm X 2732 mmHeight X 80 mmthk (350 ton)
4	*Nitrogen Purge Tank	Outer diameter4600 mm X 23469 mmlong X 32 mmthk.
5	Rotary Globe Digester	Outer diameter6096 mm X 8000 mmlong X 32 mmthk.
6	Anode Furnace	Outer diameter3962 mm X 10668 mmlong X 40 mmthk.
7	ISA Smelt Furnace	Outer diameter5200 / 8700 mm X 14700 mmheight X 32 /25 mmthk.
8	*Converter Shell	Outer diameter4042 mm X 8500 mmlong X 40 mmthk.
9	Dished Ends	Outer diameter10000 mm X 2500 mmheight X 32 mmthk.
10	Nuclear Safety Vessels	Inner Vessel: Diameter12200 / 6350 mm X 3294 mmheight X 20 mmthk. (21 Ton) Main Vessel: Diameter12860 mm X 4460 mmheight X 30 / 40 mmthk. (56 Ton) Safety Vessel: Diameter13500 mm X 4780 mmheight X 20 mmthk. (39 Ton)
11	*Kiln Shell (Cement Kiln Sections)	Inner diameter4200 mm X 8940 mmlong X 20 / 32 mmthk Inner diameter3750 mm X 2900 mmlong X 65 mmthk



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