

List of equipment / technology eligible under MSE-GIFT Scheme						
S.No.	Eligible Equipment / Technology	Energy Saving		Other Advantages	Sector	
		min	max			
		A	B			
1	Variable Frequency Drives	30	40	Extended equipment life, reduced maintenance, reduced peak demand, safety against power fluctuations	General Engineering (Electricals)	
2	Energy Efficient Transformers	2	5	Increased efficiency at no and low loads	General Engineering (Electricals)	
3	Energy Efficient Fluorescent Lamps	15	25	Longer life, less heat produced	General Engineering (Electricals)	
4	Compact Fluorescent Lamps	15	25	Produce little to no heat	General Engineering (Electricals)	
5	Metal Halides Lamps	15	25	Longer life, equally suited for indoor and outdoor use	General Engineering (Electricals)	
6	High Pressure Sodium Vapor Lamps	15	25	Long life, emits more light energy in the yellow/orange/ red region of the spectrum	General Engineering (Electricals)	
7	Light Emitting Diode	50	60	High reliability, highly rugged, produce no UV radiation and little heat	General Engineering (Electricals)	
8	Microprocessor Based Intelligent Control	20	30	Reduces energy cost by regulating light output according to available daylight, increases lamp life	General Engineering (Electricals)	
9	Exclusive Transformer for Lighting	2	3	Compact, easy to install, power quality enhancement, provide speed/torque control, safety enhancement	General Engineering (Electricals)	
10	Servo Stabilizer	2	5	Gives stable output under severe unbalanced voltage, increases equipment life, low internal impedance, works over wide input frequency range and no waveform distortion	General Engineering (Electricals)	
11	Electronic Ballast	2	5	Low internal core loss, improved light output quality, operate at a much higher frequency than magnetic ballasts, instant glow with no flickering increases tube life, no heat generated	General Engineering (Electricals)	
12	Energy Efficient Air Compressors / Blowers	30	40	Easy to install and operate	General Engineering (Electricals)	
13	Capacitors	5	7	Improve Power Factor, Release System Capacity, Improve Motor and Lighting Performance, Reduce Current and Losses	General Engineering (Electricals)	
14	Automatic Powerfactor Controller	5	7	Reduce reactive power, reduce total current from the source	General Engineering (Electricals)	

15	Soft Starter for Motors	5	7	Provides smooth and stepless acceleration and deacceleration of AC Induction Motor, less mechanical stress, improved power factor, lower maximum demand	General Engineering (Electricals)
16	Maximum Demand Controller	5	7	Energy Saving achieved by monitoring power end use turn off non- essential loads during higher power end use	General Engineering (Electricals)
17	Automatic Temperature Controller	6	8	Accurate temperature regulation, prolongs life of equipment	General Engineering (Electricals)
18	High-frequency Induction Irradiation	5	7	Higher efficiency due to skin effect by high frequency, non- contact in nature, less risk of workpiece contamination	General Engineering (Electricals)
19	High-frequency Melting Furnace	10	15	Small volume, less environmental pollution	General Engineering (Electricals)
20	Highly Sensitive and Responsive Arc Furnace	10	15	Reduce electrode usage and refractory wear, wide range of current setting, hot and cold phase compensation, longer furnace life	General Engineering (Electricals)
21	High-performance Electrolytic Furnace	25	30	Uninterrupted production & better product quality, prolonged equipment life	General Engineering (Electricals)
22	Electromagnetic Irradiation	30	40	Selective heating (heats water rather than substrate or surrounding air), ideal for materials with non-uniform moisture content	General Engineering (Electricals)
23	Common Incinerator Alongwith Power Generation Facilities	50	60	Destruction of hazardous and toxic waste	General Engineering (Electricals)
24	Computer Desktop Virtual Machine	50	60	Multiple OS environments can exist, high reliability, disaster recovery system	General Engineering (Electricals)
25	Cooling Towers (Fills with PVC Honey Comb)	30	35	Extended contact area having high heat transfer efficiency	General Engineering (Electricals)
26	Wide Belt Sander	10	15	Easy to operate and monitor the operation	General Engineering (Electricals)
27	Spindle Moulder	10	20	Higher productivity due to higher spindle speed	General Engineering (Electricals)
28	Multi-boring machine	10	15	With advance PLC control for higher productivity	General Engineering (Electricals)
29	Visicooler	45	50	High quality cooling performance, Forced air evaporator provides frost free operation, except in static models	General Engineering (Electricals)

30	Robot Arms	50	60	High efficient, automated operation	General Engineering (Electricals)
31	Enginator based on Natural Gas	20	30	Increase in fuel efficiency due to use of cleaner fuel	General Engineering (Electricals)
32	CNC Router	20	40	Improved product quality, less rejection, higher productivity	General Engineering (Electricals)
33	Vacuum forming machine with thermostat control	30	40	PLC controlled, easy to operate	General Engineering (Electricals)
34	Edge Bander Sprint with Power- PC Control	50	60	Fast heat-up time	General Engineering (Electricals)
35	Enterprise Resource Planning (ERP) (with PPC module)	40	50	Integration of design, planning & production	General Engineering (Electricals)
36	Automatic Book Sewing Machine	10	15	Easy operation, quick make- ready, high quality sewing and high output	General Engineering (Electricals)
37	Tunnel Dryer for mosquito coil industry	40	50	Environmental friendly and less pollution	General Engineering (Electricals)
38	Induction Lighting	40	60	Unmatched durability, Extremely long life (100,000 hours), Instant ignition, No flickering or cycling, Performs well in extreme cold, Superior color rendering index (CRI) > 80	General Engineering (Electricals)
39	SCADA system	15	25	Reduced operation cost, improves efficiency of the setup, can make immediate corrections in the operational systems thus increasing life period of the equipment	General Engineering (Electricals)
40	Water-tube Boiler (by replacing conventional Smoke-tube Boiler)	10	15	Handle high pressure and high temperature, recover faster than smoke-tube	General Engineering (Thermal)
41	Energy Efficient Boilers	6	10	Reduces carbon dioxide emissions by around 12	General Engineering (Thermal)
42	Energy Efficient Refrigeration System	15	20	Less heat dissipation, increase in refrigeration capacity, low noise levels	General Engineering (Thermal)
43	Automatic Combustion Control for Boilers / Furnaces	5	10	Ensures optimal fuel and air ratio, reduce fuel wastage, safe & stable operation, improves equipment life	General Engineering (Thermal)
44	Regenerative Burners for Furnace	20	30	Increase in production, furnaces size smaller for new installations	General Engineering (Thermal)

45	Heat Recovery Systems for Boilers (Economizer, Air Pre- heater)	5	10	Reduce equipment size, reduce auxiliary energy consumption, reduce pollution	General Engineering (Thermal)
46	Outdoor Intake Control / Variable Air Volume / Heat exchanger	40	60	Efficient air distribution in buildings enables control for better indoor air quality, air supply provided on local thermal load and occupancy	General Engineering (Thermal)
47	High Efficiency DG Set for Power Generation (Low Fuel Consumption with Pollution Control & Canopy)	40	45	Better power quality, lower emissions	General Engineering (Thermal)
48	Thermal Insulation for Hot & Cold Systems	6	10	Reduces surface heat loss, emissions and increase safety	General Engineering (Thermal)
49	Dehumidification Dryer	20	25	Adsorbent is non toxic / non flammable & fully water washable, minimum heat carry over	General Engineering (Thermal)
50	Energy Efficient Air Conditioner	20	40	Inverter based technology, Individual control, Self demand control, Wide Working Range, Flexible Refrigerant Piping and connectable indoor units, Refrigerant Piping and connectable indoor units, Compact and light design	Commercial Buildings
51	Energy Efficient Refrigerators (High Efficiency Compressors, Improved Insulation and Precise Temperature and Defrost Mechanisms)	10	20	Precise temperature and defrost control, improve insulation	Commercial Buildings
52	Vapour Absorption Refrigeration	20	30	Less operating cost, work on lower evaporator pressure without affecting COP, no effect on load reduction on performance, easy automatic operation to control capacity	Commercial Buildings
53	Energy Efficient Elevators	30	40	Smooth & quiet performance, does not require extra lubrication, less heat generation	Commercial Buildings
54	Equipment, Machinery and Construction Material Contributing to Increased Energy Savings	10	25	Eco-friendly construction material saves water, metal, timber and other natural resources; improves occupants health	Commercial Buildings
55	Heat Reclaim Ventilation / Air Conditioning System	50	60	Compact, smooth & quiet operation, good indoor air quality, load reduction 20-30 of air conditioning load	Commercial Buildings
56	High Efficiency Escalator	15	25	Reduce operational cost, operates smoothly in all climatic conditions, caters continuous and large crowd, safe and reliable	Commercial Buildings
57	Inorganic Textile Insulator	5	10	Versatile and corrosion resistant material, used in both reinforced and non- reinforced applications, good fire- proofing	Commercial Buildings
58	Forming Plastic Insulator	30	40	Durable & moisture resistant	Commercial Buildings
59	Heat insulating opening material	25	35	Thermal insulation stops transfer of heat between inside & outside room	Commercial Buildings

60	Air Sealing Support Material	30	40	Controls hot or cold temperatures, fills cracks and crevices preventing bugs and vermin from entering home	Commercial Buildings
61	Heat Absorbing Glass / Low Emissivity Glass (Window Panel)	30	50	Makes room warmer in winter and cooler in summer	Commercial Buildings
62	Municipal Solid Waste Based Power Generation	30	40	Reduces GHG emissions, reduces waste by 60-90, slurry produced can be used as fertilizer	Renewable Energy Technologies
63	Semi/Automatic Solar PV Module manufacturing Line	10	15		Renewable Energy Technologies
64	Solar Photovoltaic Power plants			Clean form of energy, decentralized power, negligible operation cost	Renewable Energy Technologies
65	Common Effluent Treatment Plant	30	40	Reduce capital cost & operating cost, less space requirement, proper disposal of treated waste, improve recycling and reuse possibilities	Others
66	Bioreactor with PLC	20	25	Automatic pH Control, Automatic Temperature Control, Automatic Vessel Sterilization	Others
67	Batching Plant with Microprocessor Control	15	30	Smooth Operation with highest reliability	Others
68	Wire Condensor Welding Machine equipped with PLC	20	30	High speed of operation for high product volume, flexible and less maintenance	Others
69	2 Stations Auto Balancing Machine equipped with PLC	15	30	Dynamic Balancing, Ability to handle a wide variety of part shapes and sizes, easy to operate , touch screen computer	Others
70	Compact Scan Digitizing System	3	5	Low maintenance cost, High quality measurement data, Fast scanning for large components	Others
71	Standing Seam Roofing and Curving Machine	10	20	Save labour, time and cost	Others
72	Waste Heat Recovery from Regenerative Tank Furnace	10	15	Utilization of waste heat, reduction in flue gas equipment sizes	Glass
73	Waste Heat Recovery from Recuperative Tank Furnace	10	15	Utilization of waste heat, Reduction in flue gas equipment sizes, Reduction in fuel consumption	Glass
74	Mechanical Conveyor for Soda Ash (by Replacing Pneumatic Conveyor)	20	30	Reduce cycle time, productivity improvement, reduce wastage	Glass

75	Natural Gas Fired Pot Furnace with Recuperator	20	25	Utilize clean energy source, productivity improvement, less harmful to workforce	Glass
76	Natural Gas Fired Muffle Furnace	15	20	Utilize clean energy source, productivity improvement, less harmful to workforce	Glass
77	Oxy-Fuel Fired Glass Melting Technology	10	15	Increase production, improve glass quality	Glass
78	Automatic Controllers & Recorders for Furnace Temperature / On-Line Oxygen Analyzer	3	10	Productivity improvement, furnace efficiency improvement	Glass
79	LPG Fired Bead Making Furnace	15	20	Better temperature, improve product quality	Glass
80	Horizontal Flat and Bent Glass Electric Furnace for Tempering with Automatic Controller and Recorders	5	15	Improve production & product quality, easy in operation	Glass
81	Convectional Horizontal Roller Hearth Tempering Furnace	15	20	PC based programmable logic control system	Glass
82	CNC Based Glass Cutting Machine	45	50	Can cut different shapes, can optimize layout with optimization software	Glass
83	Insulation for Kiln, Top Chamber & Furnace	3	10	Heat loss reduction, improve safety, prevents damage to equipment from exposure to fire or corrosive atmosphere	Ceramics
84	Low Thermal- mass Cars	15	20	Productivity improvement, reduce cycle time	Ceramics
85	Recuperator for Kiln (Hot Air Generation)	28	30	Utilize waste heat from Kiln cooling zone, elimination of fuel for drying zone	Ceramics
86	Variable Frequency Drives for Circulation Air Fans in Vertical Dryer	15	35	Energy saving depends on the motor loading, reduce motor heating and stress	Ceramics
87	Roller Kiln (by Replacing Conventional Tunnel Kiln)	40	50	Productivity improvement, reduce cycle time to half	Ceramics
88	Ballmill with High Alumina Tile Lining, High Alumina Balls of Different Size (Raw Material Processing)	10	15	Improvement in grinding, reduction in grinding time	Ceramics
89	Isostatic Press, Fettling Machine, Stacking Equipment (Fabrication)	10	20	Reduce breakage & cracking, reduce rejection & wastage	Ceramics

90	Fully Automatic Vertical Copying Machine for Insulator (Fabrication)	10	20	Reduce breakage & cracking, reduce rejection & wastage	Ceramics
91	Roller Head Machine for Cup & Saucer (Fabrication)	10	20	Reduce breakage & cracking, reduce rejection & wastage	Ceramics
92	Pressure Casting Plant (Fabrication)	4	10	Reduce breakage & cracking, reduce rejection & wastage	Ceramics
93	Humidity Driver Chamber (Drying)	25	30	Less drying time, less tiles breakage	Ceramics
94	Gas / Oil Fired Roller Hearth Kiln (Firing Section)	25	30	Uniform temperature distribution, ease of operation	Ceramics
95	Gas / Oil Fired Tunnel Kiln (Firing Section)	20	30	Lower maintenance, productivity improvement	Ceramics
96	Gas / Oil Fired Shuttle Kiln (Firing Section)	20	30	Lower maintenance, productivity improvement	Ceramics
97	Automatic Tile Pressing Unit	5	10	Uniform force on tiles, productivity improvement, wastage reduction	Ceramics
98	Recuperator	20	25	Utilize waste heat, reduce flue gas equipment sizes, reduce fuel consumption	Ceramics
99	Control Instruments for Firing System	5	10	Productivity improvement, quality improvement, reduce cycle time	Ceramics
100	Continuous Tunnel Dryer with Indirect Fired Hot Air Generator	20	30	Higher safety, easy to operate, less maintenance	Ceramics
101	Vertical Vibrating Machine	15	25	High productivity, 15-20 material saving, better quality spigot and socket	Ceramics
102	Mixing Plant with Pan Mixture Alongwith Attachment, Computerized Weighing Setup	15	25	PLC controlled, 15- 20 material saving, accurate quality of spigot and socket, higher productivity, less wear and tear	Ceramics
103	Squaring Line	20	25	Equipped with PLC control, frequency inverter and heavy duty type grinding assembly	Ceramics
104	Glazed Line	25	33	High quality performance & stability	Ceramics

105	Ceramic Tiles Printing Machine (Double Chain Print)	20	30	Equipped with AC Variable Frequency Drive, All operations run with Programmable Logic Card (PLC). It ensures automatic operations of machine.	Ceramics
106	Variable Frequency Drive (by Replacing Dyno Drives)	30	40	Extend equipment life, reduce maintenance, reduce peak demand, safety against power fluctuation	Pulp and Paper
107	Seven-effect Free Flow Falling Film Evaporator	40	50	Liquid does not get overheated due to short hold- up time	Pulp and Paper
108	Chemical Recovery Unit for Spent Liquor	20	30	Utilise spent liquor as fuel, saving in chemicals like Urea and DAP in effluent treatment plant	Pulp and Paper
109	High Efficiency Turbine Pump for Water Intake	50	70	Flexibility of operation, low initial cost, minimal maintenance cost	Pulp and Paper
110	Heat Recovery Boilers for Waste Combustion	25	30	Reduction in equipment size, reduction in auxillary energy consumption	Pulp and Paper
111	High-concentration size press	40	50	High-concentration size fluid, reduced drying load, and makes high- speed coating possible	Pulp and Paper
112	High-concentration pulper	15	23	Easy maceration, by slowly whirling and agitating it at a high concentration of about 15, consumes same level of power as a low- concentration pulper.	Pulp and Paper
113	Dryer with dryer bars installed inside for paper- making machine	15	20	By installing 25 bars on one- third of the dryers, productivity is increased by 20 and specific steam con-sumption is decreased by 20	Pulp and Paper
114	Steam- recompression heat pump	20	25	The hood on the dryers is sealed to minimize the leakage of air from outside. The circulating water is recycled back to the condenser top	Pulp and Paper
115	Integration of punched metal screen, slit screen and maceration machine for processing waste paper	25	30	Shorter operation period and energy saving	Pulp and Paper
116	Multi-functional combined screen	24	50	Primary and secondary screens are operated at high rejection rates,high internal recycle rate, high rate of separation and a high yield at the same time.	Pulp and Paper
117	Crown controlling roll	39	60	Non-contacting pressuring part to reduced friction loss.	Pulp and Paper
118	High-temperature soft calender for paper making	30	40	The high-temperature soft calender to make the coated paper smooth and glossy	Pulp and Paper
119	Adoption of AC Driving for Papermaking Machine and Winder System	20	30	Energy Efficient	Pulp and Paper

120	Calendering Machine with AC Variable Frequency Drive	30	35	Low specific power consumption due to VFD, Eazy to operate, Higher production rate	Pulp and Paper
121	Wide Web Inspection Re-winder with VFD controls	30	40	A handy and invaluable machine. The output of the Printing Machine is screened for printing defects such as mis- register, blade lines, shade variations etc. 100 defect free reels are obtained.	Pulp and Paper
122	Rewinding Machine with VFD controls	25	30	Extended equipment life, reduced maintenance, reduced peak demand, safety against power fluctuation, reduced installation and operating cost	Pulp and Paper
123	Armature Paper Inserting Machine equipped with PLC	10	30	Self Lubricating, Low noise	Pulp and Paper
124	Armature Winding Machine equipped with PLC	10	30	Improved Serviceability, stability, easy maintenance	Pulp and Paper
125	Heat Recovery System for Stress Relieving Furnaces	5	25	Waste heat recovery system, reduction in equipment size	Foundry
126	Oil Fired Core Drying Oven	40	50	Complete combustion, easy to operate, low maintenance cost, better product quality	Foundry
127	Gas fired Aluminium Melting Furnace (replace Oil Fired Furnace)	5	25	Reduction in Thermal Energy consumption	Foundry
128	Gas Fired Cupola	5	10	Eco friendly, higher tapping temperature, better melt quality, reduce thermal energy consumption, de-sulphurization not required	Foundry
129	Oil Fired Rotary Furnace	10	20	Reduce initial / subsequent heating time, auto on/off control	Foundry
130	Induction Furnace with Cooling Tower & Water Treatment Plant	10	25	Flexibility to produce ferrous castings, flexibility to select charge mix, better melt quality	Foundry
131	Induction Ladle Refining Furnace	10	25	Value added casting, eco friendly	Foundry
132	Natural Gas Based Power Generating Set	5	10	Environmental-friendly, high efficient, low emission	Foundry
133	Intensive Mixers (Molding / Core)	5	10	Reduce defective casting, better cast surface finish	Foundry
134	Simultaneous Jolt / Squeeze Moulding Machine	23	30	Higher productivity, dimensional accuracy, less skill requirement	Foundry

135	Spun Pipe Casting Machine	10	15	Easy to install, resistance to corrosion, high impact resistance, durable with high load taking capacity	Foundry
136	Induction Hardening Equipment (100KW, 500Hz to 3KHz)	50	60	Higher productivity, consistency in quality, can lead to saving in heat-treatment operation	Foundry
137	Removable Hearth Type Chamber (F/C upto 1200 deg C with Computer Compatible Temperature Controller)	5	15	Better temperature control, improve quality	Foundry
138	CNC Lathe Machine	55	60	Higher productivity, dimensional accuracy, less skill requirement, improve quality	Foundry
139	CNC Milling (Pattern Shop)	55	60	Higher productivity, dimensional accuracy, less skill requirement, improve quality	Foundry
140	Exothermic / Insulating Sleeves (Oven for Baking Sleeves, Molding Machines, Vacuum System)	15	25	Insulating and exothermic sleeves improves feeding efficiency upto 20 and 25 respectively	Foundry
141	Waste Heat Recovery System for Exhaust Gases	15	25	Utilise waste heat, reduce pollution, reduce auxiliary energy consumption	Foundry
142	Automatic Pouring System	10	15	Higher-quality casting with precision pouring, eliminates underpours and wasteful overpours	Foundry
143	Energy Efficient Thermal Reclamation Plant	5	10	Thermal reclamation is economical compared to mechanical reclamation	Foundry
144	Energy Efficient Short Blasting Machine	10	15	Rugged design of the machine reduces fettling cost, save labour cost, tooling cost, reduce rejection	Foundry
145	High Efficiency Centrifugal Fans	25	30	Long life, abrasion resistant	Foundry
146	High Efficiency Power Generating Set	5	10	Able to the rated load within 10 seconds in a single step, high reliability, low life cycle cost, low operating and maintenance cost	Foundry
147	Automatic Flaskless Molding Machine	10	15	Higher production efficiency, mold hardness is excess of 85	Foundry
148	Core Setter and Automatic Mold Conveyor	5	15	High-precision mould transport with no shifting, distortion or displacement of moulds	Foundry
149	Compact Vertical Moulding Machine	15	20	Higher production capacity upto 350 moulds/hour (uncored), PLC system for optimum production, less space requirement	Foundry

150	Automatic Cold Box Core Shooter	5	15	Can shoot in volume of 5 to 20 kgs, the average cycle time is from 10 second onwards without gassing, shoot and exhaust	Foundry
151	Electrically Heated Die- Heating Furnace	25	30	Uniform temperature, pollution free compared to conventional furnace, Auto controll, noise free	Foundry
152	Mechanized Moulding Machines (with PLC control)	25	60	High static & high dynamic squeeze force results in high quality moulds, uniform moulds properties, reduce rejection, reduce mould preparation costs	Foundry
153	Mechanical Sand Reclamation (PLC controlled)	50	60	Low running cost	Foundry
154	Automatic On-line Sand Controller	50	60	Low running cost	Foundry
155	Variable Speed Sand Mixer	10	30	Improved flowability, permeability, reduced operating moisture level, efficient mixing	Foundry
156	Computer Controlled Sand Cooler-Mixer	5	10	Streamlined sand handling, transport equipment, and reduced maintenance, more evenly, higher efficiency of the sand , a direct reduction in the loss of the excipients	Foundry
157	Liquid Metal Supply	25	30	Re-heating is avioded	Foundry
158	Automatic Manganese Phosphating Plant	30	40	Innate lubrication properties, these phosphate coatings can also absorb large proportions of lubricants by their porosity.	Foundry
159	Automatic Core blowing machine	15	20	Fully automatic process and PLC controlled	Foundry
160	High Efficiency Atomizers in Humidification Plant	10	20	No cleaning required, 1/3 water flow required, lower flow due to better atomization, atomized water density is adjusted	Textiles
161	Energy Efficient Fans	20	25	Lesser heat generated, reduced maintenance requirements	Textiles
162	Variable Frequency Drive for Humidification Fan	25	30	Eliminates external humidification controller	Textiles
163	Variable Frequency Drive for Autocore Suction Motor	15	30	Smooth start / stop operation, better process control	Textiles
164	Transvector Nozzle for Cleaning Application	5	10	Sucks atmospheric air along with airjet, reduce air consumption by 50	Textiles

165	Yarn Conditioning Machine	15	20	Non corrosive stainless steel used for construction, precise software with multi- cycle process facility, maintenance free trolley feeding unit, can run on electricity, steam, oil	Textiles
166	Automatic Rotor Spinning Machine with MRPS System	20	25	Every spinning position shows production rate, spinning components are directly accessible & replaceable without tools	Textiles
167	Open-width Continuous Scouring and Bleaching Range with Microprocessor Control	15	20	Controlled cloth tension, low chemical consumption	Textiles
168	Ring Frame Machine	15	20	Higher production rate	Textiles
169	Speed Frame Machine	10	15	Smooth start / stop operation, better process control	Textiles
170	Extrusion Lamination Line with Frequency Control Motors	10	30	Smooth start / stop operation, better process control	Textiles
171	High Speed Mouldar Mounter	20	30	Improvements in actual throughput	Textiles
172	Warp / Raschel Knitting Machine (Manufacturing of Knitted Fabric)	25	30	Inverters to control speed, operate conveniently	Textiles
173	High Speed Computerized Warping Machine for Knitting	15	25	Broken & lost end can be memorised	Textiles
174	Modern Industrial Humidification System (for Controlling Relative Humidity & Temperature)	50	60	Ease to maintain, longer life, multiple axial fans with direct drive, PVC diffusers	Textiles
175	Wet Fabric Spreading and Squeezing Machine (Dyeing)	20	30	Excellent squeezing and spreading performance, increase roller life	Textiles
176	Roller Steamer / Polymeriser (Dyeing)	10	20	Less maintenance and operating cost	Textiles
177	Washing Range with Arrangement of Tension Free Fabric Drying and Reduced Water Consumption / Water Reuse System (Dyeing)	5	10	Improvement in product quality	Textiles
178	Hydro Extractor (Dyeing)	15	20	Very high speed results in quick and maximum hydro extraction, AC Inverter drive for soft start / stop, dynamically balanced to high accuracy	Textiles
179	Tumble Dryer (Dyeing)	15	20	Fully programmable electronic control, cool down feature minimizes wrinkling & guarantees longer fabrics life, timer controlled operation	Textiles

180	Multi Chamber Stenter (min 4 Chambers) with Arrangement of Oil / Gas Heating (Finishing)	10	20	Close circuit air circulation chamber, wide internal chamber space for easy cleaning, zig-zag arrangement of motors	Textiles
181	Radio Frequency / Infrared Radiant Gas Fired / Microwave / Loop / Relax Dryer (Finishing)	15	20	Optimum residual shrinkage with softer, fuller, bulkier handle of fabrics, shape stability	Textiles
182	Heat Recovery System for Stenters	25	30	Utilise waste heat	Textiles
183	Balloon Padding Machine	10	15	Compact in size, high durability, motors controlled by A.C. invertors	Textiles
184	Slit Opener with Squeeze Mangle	30	40	Excellent Squeezing performance, increase in roller life	Textiles
185	PLC Based Compacting Machine	20	30	Sensitive load cells, variable frequency drive, PLC control, lowest residual shrinkage values	Textiles
186	PLC Based Mercerizing Machine	20	30	Saving of dyestuff in subsequent processing, increase penetration of printing paste, improve response to sueding or raising	Textiles
187	Fabric Reversing and Slit Opening Machine	5	15	Smooth and fast working	Textiles
188	Air Tight Hot Air Stenter Machine (using AC Interver Drive)	25	30	Electronic air flow control, high efficient drying zone, unique air flow system with individual blower for top / bottom jet box	Textiles
189	Energy Efficient Boiler with Combustion Control System (Steam Heating System)	10	15	Measures & monitors for design parameters, safe working range, facility for alarm & tripping during emergency	Textiles
190	Thermo Pac (Heating System)	10	25	Easy access to parts for maintenance, easy to monitor	Textiles
191	High Speed / Ultra High Speed Knitting Machines	20	30	Higher production rate, less maintenance, vibration absorbing system for machine legs, inverter controller motor system, tripping during emergency	Textiles
192	3 Thread Fleece Machines (Ploy Plating)	15	30	Higher production rate, needle detector, inverter controlled motor, anti- dust device, tripping during emergency	Textiles
193	Interlock Knitting Machines	5	20	Higher production rate, needle detector, inverter controlled motor, anti- dust device, tripping during emergency	Textiles
194	RIB Pointel Jacquard Machines	10	30	Higher production rate, needle detector, inverter controlled motor, anti- dust device, tripping during emergency	Textiles

195	RIB Knitting Machines	20	30	Higher production rate, needle detector, inverter controlled motor, anti- dust device, tripping during emergency	Textiles
196	High Speed Single Jersey Knitting Machines	10	25	Higher production rate, less maintenance, anti- dust device Quality Wheel fear box, High quality cam surface for improving sinkers & needle lifetime and tripping during emergency	Textiles
197	Single Jersey Machines with Open Width Take Up System	15	30	Higher production rate, require less manpower, less maintenance, smooth fabric edge cutting, compressor not required, tripping during emergency	Textiles
198	Single Jersey Auto Stripper Machines	5	10	Faster pattern setting, generous stitch-forming area, minimum strain on yarn, reliable striping of even extreme fabric	Textiles
199	Terry Knitting Machines	15	30	Higher production rate, Inverter motor control, RS- 485 communication interface, less maintenance, Vibration Absorbing system for machine legs, frame design to withstand at high speeds, Anti-dust device and tripping during emergency	Textiles
200	Float Plating Denim Machine	15	30	Higher production rate, less maintenance, high quality cam surface, increase needle life, tripping during emergency	Textiles
201	Double Knit Electronic Jacquard Machine	20	30	Latest generation electronics	Textiles
202	Woven Like Corduroy Machine	5	15	Higher production rate, less maintenance, tripping during emergency	Textiles
203	High Speed Circular Knitting Machines	20	25	Higher production rate, less maintenance, vibration absorbing system for machine legs, inverter controller motor system, tripping during emergency	Textiles
204	High Speed Flexible Chip Shooter	30	40	Sixth generation high- speed modular chip shooter, combined with the laser centering system gives more accurate components	Textiles
205	Grey Heat Setting	20	30	PLC, suitable for removal of snarling and curling effects, stabilise moisture level in dry yarn, variable frequency drive systems	Textiles
206	Soft Flow / Jet Flow Dyeing Machine (Low MLR of 1:5 or Lower)	30	35	Variable frequency drive for centrifugal pump in jet-dyeing machine, energy saving by avoiding pressure loss across control valve	Textiles
207	Squeezer with Slit Opener	15	30	PLC, magnetic stretcher, variable frequency drive	Textiles
208	Balloon Padding	10	25	Compact in size, high durability	Textiles
209	Relax Dryer	5	25	Optimum residual shrinkage with softer, fuller, bulkier handle of fabrics, shape stability	Textiles

210	Specialty Fabric Finisher such as Brushing, Sueding, Raising, and Compacting	5	15	Creaseless drying	Textiles
211	PLC Based Package Dyeing Machine	10	15	PLC controlled, highly reliable	Textiles
212	Automatic Hank / Yarn Dyeing Machine	15	20	Variable conveyor speed, low fibre loss, equipped with moisture controller or automatic control for moisture retention prior to blending / spinning	Textiles
213	Direct-drive, High Speed, Lockstitch Machine with Automatic Thread Trimmer	5	10	Increase in feed, broadend sewing range, prevent sewing problem	Textiles
214	Lockstitch Machine with Automatic Thread Trimmer	5	10	Easy to operate, sure thread trimming mechanism	Textiles
215	Semi-dry-head, High Speed, Overlock Stitch Machine	10	15	Eliminate oil stains on sewing product, cutting edge dry technology to achieve lubrication free mechanism	Textiles
216	Computer- controlled, High Speed, Lockstitching Buttonholing Machine	20	25	30 stitch patterns for buttonhole	Textiles
217	Computer- controlled, High- speed, Lockstitch, Button Sewing Machine	20	25	Different sewing patterns, better seam quality, auto lifter mechanism, oil stains are eliminated, sewing starting point can be corrected	Textiles
218	High-speed, Flatbed, Top & Bottom Coverstitch Machine	20	25	Stitch type as per sewing items, simplified maintenance mechanism	Textiles
219	High-speed, Cylinder- bed, Top & Bottom Coverstitch Machine	20	25	Stitch type as per sewing items, simplified maintenance mechanism	Textiles
220	Computer- controlled, High- speed, Bartacking Machine	10	30	Faster speed, high productivity, better seam quality, wider sewing area, different sewing pattern	Textiles
221	Servo-motor Stitching Machines	50	60	Clutch-less operation, variable speed, Reverse Motor rotation Up to 4000 RPM / High Torque 400 watts,	Textiles
222	Clutch Motor Stitching Machines with 3-phase Motor	7	10	Accurate clutch operation permits instant start / stop, vibration & noise is minimized	Textiles
223	Computerized Embroidery Machine	15	20	Advance Dahoo program gives high quality performance, colour LCD displays current embroidery design, use servomotor, high precision	Textiles
224	Automatic Printing Machine	10	30	Auto start / stop with auto counters, aluminium honey comb pallets, half index to clean screen	Textiles

225	Industrial Washing / Drying Machine / Tumble Dryers	10	15	Programmable electronic control, timer controlled operation, cool down feature to minimize wrinkle to guarantee longer fabric life	Textiles
226	Draw Winder	40	50	Inverter driven motor drive system offers stepless parameter setting in running condition	Textiles
227	Air Draw Texturising Machine	40	50	Inverter driven motor drive system offers stepless parameter setting in running condition	Textiles
228	Draw Texturising Machine	40	50	Inverter driven closed loop speed control for individual drives	Textiles
229	Filament Twisting Soultons	40	50	Electronic NXG Power Saver Control System	Textiles
230	Spun Twisting Solutions	40	50	Electronic NXG Power Saver Control System	Textiles
231	Industrial Twisting Solutions	40	50	Electronic NXG Power Saver Control System	Textiles
232	Thread Manufacturing Solutions	40	50	Electronic NXG Power Saver Control System	Textiles
233	Crepe Yarn Solutions	40	50	Electronic NXG Power Saver Control System	Textiles
234	Automatic Cone Winder	15	20	Variable frequency draive controlled, vacuum sensor & electronic circuit to optimize suction pressure	Textiles
235	Yarn Guided Machine with Precision Crossing with Inverter Control	10	30	High winding, Electronic yarns sensor	Textiles
236	Tape Winder (Using Frequency Drive)	10	30	Highest precision and flawless quality	Textiles
237	High Speed Shuttleless Velcro Machine	5	20	Even feeding of yarn and efficient operation	Textiles
238	Water Jet Looms	40	50	High Speed, low vibration, lowest power consumption per meter of fabric manufactured	Textiles
239	Air Jet Looms	40	50	Lowest power consumption per meter of fabric manufactured	Textiles

240	Rapier Looms	40	50	Lower production cost due to higher efficiency	Textiles
241	Jacquard Machine with Electronic Control	40	50	Easy to adapt and versatile, Easy Integration, Extremely resilient, Minimum Maintenance	Textiles
242	Heat Recovery Systems for Boilers (Economizer, Air Pre-heater)	5	10	Reduce auxiliary energy consumption, equipment size, fuel consumption, pollution	Textiles
243	High Efficiency Diesel Generating Sets with High Specific Energy Generation Ratio	5	10	Able to the rated load within 10 seconds in a single step, high reliability, low life cycle cost, low operating and maintenance cost	Textiles
244	Energy Efficient Fan, Blower, Pump	25	30	Lesser heat generated, reduced maintenance requirements	Textiles
245	Automatic Power Factor Controller	5	10	Reduce reactive power, reduce total current from the source	Textiles
246	Polishing Line with High Efficient Electric Motors using AC drives	10	30	Follows International Design and quality, easy operation and maintenance	Textiles
247	Circular Weaving Machine	20	25	Optimum output of fabric and quality from the machine corresponding to the quality of tape	Textiles
248	Tape Extrusion Line	25	30	Equipped with automatic screen changer with in-line gear pump system	Textiles
249	Cheese Winder	20	30	Capable of producing high quality packages even at the highest operating speed, flexibility in changing wind ratios for processing variety of tapes	Textiles
250	Automatic Stitching Machine	20	25	High nonstop speeding machine	Textiles
251	Bridge Guiding machine	20	25	High Accuracy and faster operation	Textiles
252	Blow Room machinery	15	20	Higher efficiency rates, Longer lives of clothings and spinning components, Increased economic efficiency, Clean ambient air	Textiles
253	Open width knitted Inspection machine for fabric with Inverter control	25	30	Variable Speed drives, Inverters with built in PLC drive, Easy to operate, Piece-end detector automatically stops machine & thus saves power	Textiles
254	Circular Grain Knitting Machine	20	25	Excellent design, solid structure and easy operation, Reduction in the wastage of material and power	Textiles

255	Four Needle Chain Stitch Machine	10	15	Micro adjustment for needle feeding amount, Full Automatic Lubrication, Retractable Looper mechanism for Easy Threading	Textiles
256	Automatic Saddle Stitchers (with Variable Frequency Drive)	10	15	Reduced energy consumption, High net output, Quick and safe setup, Simple operation, Exceptional process reliability	Textiles
257	Armflat Lock Machine	10	15	Different sewing patterns, Easy to operate, Low power consumption, Faster speed, High productivity, Better seam quality, Simple maintenance	Textiles
258	Automatic Package Winder	10	15	High quality, High Productivity, Easy Operation	Textiles
259	Overhead travelling cleaner using energy efficient motor and PLC control system	50	60	Precision design and construction standards for ensuring consistent performance, New design power duct that adds longer service life to brushes, Comes with option of adjustable blowing attachment, Compatible in nature More durable Easily avail this from the market at attractive prices	Textiles
260	Ultrasonic Cutting Machine	10	15	Efficient Performance, Reduce/Eliminate operators intervention	Textiles
261	VFD/Servo/ PLC driven High Speed Shuttleless Weaving Machine	10	20		Textiles
262	VFD/Servo/PLC driven High Speed Warping Machine	10	20		Textiles
263	Automatic VFD/ Servo/PLC driven Fabric Straightening System Machine	10	15		Textiles
264	Hollow Heading Machine	10	15	High speed, fully automatic, high mass production	Textiles
265	Heading Machine with Semi Cover	10	15	High speed, fully automatic, high mass production	Textiles
266	Energy Efficient Air Compressors	30	50	Easy to install and operate	General Engineering (Electricals)
267	Heat of Compression Air Dryers (Replacing Desiccant Air Dryer)	30	40	Replacement of desiccant air drier with refrigerated dryer, less maintenance as no moving parts	General Engineering (Electricals)
268	Variable Frequency Drive for Oil Pump in Hydraulic Power Pacs	25	30	Smooth start / stop, increase life	General Engineering (Electricals)
269	Energy Efficient Exhaust Fans	20	25	Improve in suction	General Engineering (Electricals)

270	Variable Frequency Drive for Hot Air Circulation Fan for Preheating Furnace	25	30	Smooth start / stop, increase life	General Engineering (Electricals)
271	Air Preheater (for Furnace Flue Gas Waste Heat Recovery)	5	25	Reduce auxiliary energy consumption, equipment size, fuel consumption, pollution	General Engineering (Thermal)
272	CNC Cutting Machine with End Former	45	50	Higher productivity, dimensional accuracy, require less manpower skill, consistency in quality	General Engineering (Electricals)
273	Full Automatic CNC Return Bender	45	50	Automatic feed, produce return bends at high production speed	General Engineering (Electricals)
274	Automatic Ring Sizing and Loading Machine	45	50	Higher productivity, require less maintenance	General Engineering (Electricals)
275	CNC Vertical Machining Centre	45	50	Higher productivity, dimensional accuracy, require less manpower skill, consistency in quality	General Engineering (Electricals)
276	Vacuum Holding for Non-Ferrous Components for High Speed Milling	25	30	Higher productivity, higher accuracy	General Engineering (Electricals)
277	CNC Co-ordinate Measuring Machine	25	30	Higher productivity, higher accuracy	General Engineering (Electricals)
278	CNC Sharpening and Profile Grinding, Automatic Broach Shappingen Machine	15	30	Higher productivity, dimensional accuracy, require less manpower skill, consistency in quality	General Engineering (Electricals)
279	Turning Machine with Variable Frequency Drive with Regenerative Braking System	30	35	Variable frequency drive, high speed machining	General Engineering (Electricals)
280	Servo Electric Turret Punch Machine	10	20	Punching force: 20 / 30 ton, compact size, low maintenance	General Engineering (Electricals)
281	Abrasive Assisted High Pressure Water Jet Cutting	20	25	High cutting speed, Improve cutting quality, no material deformation caused by heat, no change in metal structure, no heat affected zones, No hazardous fumes and vapours	General Engineering (Electricals)
282	Inverter Based Welding Machine	50	60	Faster response time, low ripple, smaller in size & lighter in weight hence portable, better weld quality	General Engineering (Electricals)
283	CNC Plasma Cutting Machine	40	45	High- precision and control	General Engineering (Electricals)
284	Double Polishing Machine (with Inverter Control)	20	30	High efficiency and High quality product output	General Engineering (Electricals)

285	Pressure Die Casting Machine	25	30	Optimum flexibility with processes and procedures	General Engineering (Electricals)
286	Semi Automatic Pillar Type Hydraulic Hot Moulding Press (with PLC Control)	30	40	High product quality and high product efficiency	General Engineering (Electricals)
287	CNC Electronic Spring Control Machine	15	20	Micro stepping drive for accurate positioning and loading control, Programmable Control	General Engineering (Electricals)
288	Fully Automatic Hydraulic Hot Chamber with Diesel Burner	20	25	Well and High Quality Control	General Engineering (Thermal)
289	Rotary Table Machine for Surface Finishing and Polishing (with Inverter Speed Regulation)	10	30	Precision, efficiency, rigidity, stability	General Engineering (Electricals)
290	CNC Punching Forming Machine	25	30	Consistent quality and dimensional precision	General Engineering (Electricals)
291	CNC Based Gear Tester	20	30	User friendly and reduced cycle time	General Engineering (Electricals)
292	Open Back Double Point Press – PLC Controlled	30	40	High precision, high strength, high rigidity	General Engineering (Electricals)
293	Automatic Transfer Unit	35	40	Independent of the type of switchgear,Up to 32 cubicles with the same remote control unit.	General Engineering (Electricals)
294	CNC Garter Spring Former	35	40	High speed production capability	General Engineering (Electricals)
295	Electro-Hydraulic CNC Punching Machine	25	30	Machine equipped with standard accessories and CE certified oil pump	General Engineering (Electricals)
296	Automatic NC Control Bending Machine	50	65	Volume production pieces or changing requirements	General Engineering (Electricals)
297	Sensor Oxy – Height Control (OHC) and Sensor Plasma Height Control (PHC)	10	20	Operator input is reduced, accuracy improves and productivity increases	General Engineering (Electricals)
298	Insulated Gate Bipolar Transistor Based Inverter	30	40	High power factor (0.95), can start up at any load, automatic power & frequency tracking	General Engineering (Electricals)
299	Cylinder Block Boring and Milling Machine (with Variable Speed and Cycle Control)	10	30	Easy operation, Life long quality Service, Automatic central lubrication	General Engineering (Electricals)

300	Duplex Roller Polishing Machine	40	50	Consistent cleaning, 60 time saving in brushing operation, easy brush replacement, hi-speed turbine blower for inside hole cleaning	General Engineering (Electricals)
301	NC Cutter and Rotary	30	40	High precision slitting, easier operation, higher efficiency and reduced down-time for change- over.	General Engineering (Electricals)
302	Radial CNC Multi Spindle Drilling Machine	25	35	Greater precision and reliability	General Engineering (Electricals)
303	Electrically heated Nitriding Furnace	30	40	Nitriding quickly, Low brittleness, Stable performance, Easy operation	General Engineering (Electricals)
304	CAM Machine	45	60	Enables very high accuracy levels in large- scale production. Usually speeds up production of low- volume products. Reduction in energy consumption to produce a particular product	General Engineering (Electricals)
305	Travelling head clicking machine	15	20	Quality improvement, higher productivity with high precision. Less consumption of energy. Minimum intervention of manpower. Better utilisation of raw material with less wastage	General Engineering (Electricals)
306	Aluminium Profiling Extrusion Machines (Hydraulic using Variable Pumps with PLC Controlled)	10	30	Simple operation, safe and convenient service to check of mechanization and automation, reduction in labour required, increased productivity	General Engineering (Electricals)
307	Single Spindle Verticle Honing Machine with VFD control	15	30	Equipped with energy efficient motor and other electrical items, VFD to control Spindle rpm, Simple and easy to operate, Time saving process	General Engineering (Electricals)
308	Slant Bed CNC Lathe	45	54	Maximum stability and convenient chips disposal, High torque output at low speed, Programmable tailstock for convenient operation, Fast tool change, high positioning accuracy	General Engineering (Electricals)
309	Panel Cutter machine (PLC controlled)	15	20	Energy Efficient operation due to the PLC Control System, High-tech error diagnosis by true photos & video clips for imidiate identification of source of the problems.	General Engineering (Electricals)
310	CNC machining centre with Inverter controlled	45	55	Possible to lock the elements to be processed, optimising machining operations for each cycle and reducting overall productions times, Quick coupling system guarantees fast, Simple replacement of vacuum modules with clamps.	General Engineering (Electricals)
311	Laser Cutting machine	10	30	High Cutting speed & minimal downtime, Low and easy maintenance, simple to operarate.	General Engineering (Electricals)
312	Cylindrical Grinding Machine (with Inverter control)	30	40	Automatic swivel by servo motor, Hydrodynamic lubrication system, Safety Wheel Guards design, Variable wheel spindle speed controlled by default program, ensure constant peripheral speed of grinding wheel	General Engineering (Electricals)
313	CNC Tool and Cutter Grinder	45	55	Digital servo drive system, Machine is based on the Intel core 2 duo procersser. Autometric Wheel changer, Autometric oil lubrication system	General Engineering (Electricals)
314	CNC Column Moving Horizontal Machining Centre	45	55	High-performance large- sized Horizontal Machining Center, Heavy-duty machining realized by box-type guideway, Minimized thermal deformation of ball- screw nut	General Engineering (Electricals)

315	Automatic end cutter	20	30	High cutting speed and counterblade conveyor to make quick and perfect trimmings, equipped with a suitable device for sharpening the blade	General Engineering (Electricals)
316	Intermix (with water cooled rotors)	10	15	Eliminate compressed air requirements reducing operating costs and providing energy savings, eliminates variations in ram pressure, providing uniform and consistent process conditions	General Engineering (Electricals)
317	Hydraulic Cone Crusher	10	15	Multi-split control system for hydraulic lubrication, More stable operation, High efficiency & production capacity	General Engineering (Electricals)
318	5 axis CNC Tool and Cutter Grinding Machine	45	55	Rigid and precision work spindle with through bore Adequate supply of coolant directed to the cutting zone User friendly operating software with ready-made menus for commonly manufactured standard and special tools	General Engineering (Electricals)
319	Flat Bed CNC Chucker	45	55	Automatic centralized lubrication, Built in coolant & lighting system, High Rapid rates	General Engineering (Electricals)
320	Vertical Sliding Head Machine	45	55	Energy efficient operation, Precise cutting, Automatic lubrication system, Circulating cooling system, Longer blade life, Electronic Saw blade protection, Convenient cleaning and maintenance	General Engineering (Electricals)
321	Turn Auto Loading and Unloading CNC Machine	30	35	Higher productivity, Variable frequency drive, High speed machining	General Engineering (Electricals)
322	Impregnating Plant with VFD controls	15	35	Energy efficient operation of machines, Extended equipment life, Reduced maintenance, Reduced peak demand, Safety against power fluctuations	General Engineering (Electricals)
323	Automatic Vacuum Press	25	35	Energy efficient operation due to PLC Control system, Large vacuum power , High production, Various absorbing functions.	General Engineering (Electricals)
324	Full Automatic Polishing Machine (with Frequency Converter)	18	23	High production efficiency, Good products quality and low processing cost	General Engineering (Electricals)
325	Pilger Machine	15	20	Efficient operation, Improved productivity, Pressurized mandrel lubricating system, Robust & reliable PLC circuit.	General Engineering (Electricals)
326	Hydraulic Puller (with electronically controlled and brake hydraulic dynamometer)	20	30	Less energy consuming operation, Negative self-acting hydraulic brake, Hydraulic dynamometer, Hydraulic cooling system, Built-in self-loading reel winder	General Engineering (Electricals)
327	Conveyor System	10	15	Reliable quality, High performance price ratio, Compact structure, Small cross section, Light weight, Good seal performance, High transport efficiency, Flexible technological arrangement, Easy to install, Safe operation	General Engineering (Electricals)
328	Polishing Machine	20	30	Energy efficient operation, Independent motor controlled electronically with speed variator.	General Engineering (Electricals)
329	Hydraulic Deep Draw Press with Die Cusion complete with Hydraulic power pack (With PLC control)	25	30	Easy to operate & maintain, High productivity	General Engineering (Electricals)

330	Seam Welding Machine (with Microprocessor based weld control)	15	30	Latest microprocessor controls, High production, Low maintenance, Improved efficiency	General Engineering (Electricals)
331	5 Axes Universal Milling Machine	20	25	High flexibility, Direct measuring systems, Powerful motor spindle, Maximum precision, Higher efficiency, Space economy	General Engineering (Electricals)
332	Multi-wire Cutting Machine with Automatic control using PC	50	60	High production level, low production cost, saving of material by 3, compact design and environment friendly	General Engineering (Electricals)
333	Fiber Laser Marking System	5	10	Long and Trouble free Operation, high quality and aesthetic look	General Engineering (Electricals)
334	Gapframe Mechanical Press with PLC Control	25	30	Superior reliability and consistency, increased performance	General Engineering (Electricals)
335	Continuous Hardening and Tempering Line Furnace	10	20	Easy operation and provision for data logging	General Engineering (Electricals)
336	Tube Straightening & Cutting Machine equipped with PLC	10	20	Easy and quick mounting of the tubes	General Engineering (Electricals)
337	Serpentine Bending Machine equipped with PLC	25	30	Userfriendly, versatile	General Engineering (Electricals)
338	Wire Flattening Mill	20	25	Reduced energy consumption; variable speed drive; PLC based control system	General Engineering (Electricals)
339	Mechanical Press with PLC and VFD control	10	20	Automatic oil forced lubrication system, dynamic balancing system, reduced noise	General Engineering (Electricals)
340	Electric Overhead Travelling Crane with VFD	10	15	Noise Free, Overload tripping facility, Lightweight	General Engineering (Electricals)
341	TIG welding machine (using thyristorised control)	10	20	Forced Air Cooling fan, Stepless current control	General Engineering (Electricals)
342	PLC based Fully Automatic Sawing Machine	20	30	Helical Geared Motor, Cycle Sequencing through PLC, Automatic machine Off in case of Blade Breakage	General Engineering (Electricals)
343	PLC based Vertical Boring Mill	20	25	High precision ballscrews, All axis driven by servo motors, Smooth, vibration-free turning	General Engineering (Electricals)
344	CNC Surface Grinder Machine	20	30	Hydraulic Tailstock, Live spindle workhead with NC shift function	General Engineering (Electricals)

345	CNC/PLC based Sheet Metal Rolling and Forming Machine with VFD	10	30		General Engineering (Electricals)
346	Harmonic filter	3	8	The harmonic filter is essential in ensuring the power quality and help prevent and fault in electronic component	Cross-sectoral - Electrical
347	Louisiana State University (LSU) Port Dryer	25	40	This technology ensured uniformly dried product and can be used for different types of grains as well	Food Processing
348	Improved Oven with Heat Recovery Equipment (Puffed Rice)	15	45	Improve in quality, reduce breakage, reduce pollution	Food Processing
349	Oil Fired Oven; Biomass Fueled Multipurpose Drier; Energy Efficient Wood Fired Low Cost Bakery Oven (Bakery Products Manufacturing)	30	50	Less wood consumption, improve in working environment	Food Processing
350	Energy Efficient Boiler with Heat Recovery (Cashew Processing)	20	30	Reduce equipment size, reduce auxiliary energy consumption, reduce pollution	Food Processing
351	Energy Efficient Boiler with Heat Recovery (Parboiled Rice Mill)	20	30	Reduce equipment size, reduce auxiliary energy consumption, reduce pollution	Food Processing
352	Biomass Gasifier Based Furnace (Namkeen Making)	35	50	Utilize clean energy	Food Processing
353	Automatic Fruits and Bottles Washing Machine with Conveyor, Blower, Pump and Agitator, Fruits and Vegetable Cutting Machine, Stainless Steel Double Walled Steam Jacketed Kettles, Boiler, Pulper	15	30	Improve product quality, better working environment, improve productivity	Food Processing
354	Spice Grinding (Cryogenic Grinding, Automatic FFS Packaging)	20	30	Improve product quality, increase in production by 2/3 times, improve product shelf life	Food Processing
355	Replacing Semi-mechanisation to Mechanisation Bakery Process, Replacement of Coal / Wood Fired Oven to Oil Fired / Electric Oven, Biomass Fired Multipurpose Drier, Energy Efficient Low Cost Bakery Oven (Wood Fired) Installation of Quality	25	40	Improve productivity & quality, require less manpower	Food Processing
356	Cashew Processing (Boiler, Heat Exchanger with Complete Accessories, Packaging Machine, etc.)	15	30	Improve productivity & quality, require less manpower	Food Processing

357	Rice Milling with Rubber Roller Sum Sheller (Without Parboiling) and Modern Rice Milling with Parboiling (Paddy Cleaner, Destoner, Rubber Roller Cum Sheller, Paddy Separator, Boiler, Par-boiling System, Dryer, Colour Sorter, Cone Polisher, Quality Control)	10	25	Improve product quality	Food Processing
358	Fryer Machine with Conveyor Belt & Bucket Elevator (Namkeen)	20	25	Precise process control, easy to operate, improve product quality	Food Processing
359	Palates - Kukure Line Machine with Packing Unit	20	25	Improved productivity and quality	Food Processing
360	Packing Machine - Bag Maker & Weigher	10	15	Improve productivity & quality, high precision, improve product self life	Food Processing
361	Namkeen Mixing Machine	30	40	Uniform mixing, Easy to operate	Food Processing
362	Oil Fired Rotary Rack Oven	15	30	Uniform baking, improve quality through proper air distribution,	Food Processing
363	Prover	30	35	Separate system for heating & humidity, durable & reliable	Food Processing
364	Spiral Mixer	5	10	Improve quality through homogeneous mixture	Food Processing
365	Automatic Rinsing, Filling & Capping Machine for PET Bottles	10	15	Improve productivity & quantity, easy to operate & control	Food Processing
366	Automatic Rinsing, Filling & Capping Machine for Glass bottles	10	15	Improve productivity & quantity, easy to operate & control	Food Processing
367	Shrink Sleeve Inserting Machine	10	15	Improve productivity & quantity, easy to operate & control	Food Processing
368	Dough Sheeter	10	20	Variable speed machine, chromium plated rolling cylinder regulates to press and roll thin or thick dough perfectly, scraper can easily removed to clean	Food Processing
369	Rotary Rack Oven	30	40	Illuminating elements outside main heating chamber with off facility	Food Processing
370	Deck Oven	25	30	Special burner, improved compartment design	Food Processing

371	Planetary Mixer	30	40	Performs efficient mixing, interlocked safety guard, emergency stop, motor cooling system to ensure safe & smooth function	Food Processing
372	Cookie Drop	25	30	Adjustable speed & time of depositing roller, adjustable speed of nozzle rotation	Food Processing
373	Air Dryer – Refrigerated Air Compressor Type	30	40	Provides pressure dewpoint down to 4°C, display to read dewpoint / operating status / fault indication	Food Processing
374	Cashew Peeling Machine with Screw Compressor	25	35	Increase temperature automatically in short time span, continuously duty cycle, maintenance & clearing easily	Food Processing
375	Biomass Gasifier Based Furnace	35	50	Utilize clean energy, reduce CO2 emission	Food Processing
376	Carbon Molecula Sieve for Nitrogen Generation	10	15	Improve quality, longer life, low maintenance	Food Processing
377	Heat Recovery System for Aircondenser	20	30	Improve working environment	Food Processing
378	Improved Oil Burners (Biscuit Plant)	5	10	Complete combustion, improve working environment, improve productivity	Food Processing
379	High Efficiency Fan at Wheat Godown	10	15	improve mechanical driving system life, lower noise, longer fan life	Food Processing
380	CNC based Dispensing Machine	30	35	Suitable for high capacity location	Food Processing
381	Mesh Kettle with Dimple Jacket	60	70	Large heating surface area, High thermal efficiency, Uniform heating, Easy controlling heating temperature	Food Processing
382	Double Stage Spary Drying Plant with Agglomeration System	10	15	Production of instant powder, Flexibility in controlling powder quality negligible - deposition of powder in chamber, Less downtime for maintenance	Food Processing
383	Automatic Paddy Husker	30	40	Closed-circuit aspirator, Increased rubber roll life, Pneumatic control system, Higher husking ratio, Quick and easy roll replacement system	Food Processing
384	Paddy Separator (Oscillating type)	40	50	Higher capacity, reduced brokens, 30 increase in rubber roll life, automatic operation	Food Processing
385	Vertical Rice whitener	40	50	Higher Milling Yield and Fewer Brokens, Minimum Residue Bran Inside Machine, Compact Design & Longer Life of Parts	Food Processing

386	Cone filling machines (with VFD controls)	20	35	Easy to operate and adjustable filling volume, Cip cleaning simple piston and cylinder design, Online Volume settings	Food Processing
387	Microprocessor controlled cold room for storing ice cream	15	30	Microprocessor controlled temperature ranges, 24 hour temperature recording/ monitoring, Automatic defrost control	Food Processing
388	Stripper Unit (with VFD controls)	15	25	Energy efficient operation with Higher productivity & accuracy	Food Processing
389	Two Tire Cooling Conveyor (with VFD controls)	10	15	Variable speed control, Reliable quality, High transport efficiency, Easy to operate	Food Processing
390	Magnetic / Moulding Rotary Stackers (with VFD Controls)	15	30	Low specific power consumption due to VFD, Eazy to operate, Higher production rate	Food Processing
391	Conveyor Packing Table for Post Baking (with VFD controls)	10	15	Energy efficient operation, Improved productivity, Higher accuracy	Food Processing
392	Tetra Pak Milk Pasteurisation (temperature control with PLC)	50	60	Safe production, No pressure dip during separator discharge, maintains the differential pressure all through the production, Hibernation function, Reduced product loss	Food Processing
393	Tetra Pak Milk Homoginiser (with serial cooling system)	25	30	Reduced maintenance costs and energy consumption improved working through safe design, reduced noise levels and easy access for service and daily maintenance.	Food Processing
394	Optical Full Colour Sorter	10	30	Improved Product Quality	Food Processing
395	Automatic Volumetric Liquid Filling Machine with VFD	15	30	Rigid vibration free construction, Reciprocating filling nozzle with self centering device to avoid foaming	Food Processing
396	Semi Automatic Screw Capping Machine	10	20	Easy operation and maintenance, no cross contamination, reduce process validation cost	Food Processing
397	Semi Automatic Ropp Cap Sealing Machine	15	20	Low noise and Accurate functioning, Highly durable, long lasting & cost effective in nature	Food Processing
398	Automatic Single Head Screw Capping Machine	15	30	Unique design for lower output screw capping, Low noise level, low power consumption	Food Processing
399	Automatic Single Head Roop Cap Sealing Machine with Ac drive	15	30	Ideal for continuous heavy duty operation, High Efficiency, low electricity consumption	Food Processing
400	Automatic Multi Head Screw Capping Machine	15	30	Low noise level, low power consumption, Universal coupling for quick and easy setting of In-feed worm	Food Processing

401	Automatic Ropp Cap Sealing Machine	15	30	Longer working life, trouble- free operation and low maintenance cost	Food Processing
402	Automatic Measuring/ Dosing Cup Placement & Pressing Machine with AC drive	15	30	Less maintenance cost, reliable performance, easy operation	Food Processing
403	Automatic Filling- Plugging Capping Machine with PLC Control	10	25	Fully automatic filling, plugging & capping operations, Very compact and user friendly design	Food Processing
404	Double Chute Wrapping Machine	20	30	AC Frequency drive, Digital temperature controller	Food Processing
405	Automatic Horizontal Flow Wrap Biscuit Packing Machines	20	35	Servo/PLC control, high production, easy to operate, low maintenance cost, reduced energy consumption	Food Processing
406	Automatic Ampoule Filling & Sealing Machine	20	30		Food Processing
407	Shell and Tube Heat Exchanger based Whipped Cream Processing Plant (replacing jacket heating)	10	20	Lower steam consumption, faster cooling, better turn- down ratio	Food Processing
408	Fryum Snack Extruder Machine	10	20	Water Cooled Barrels and Main shaft. Continuous cooking food extruder with auto feeding and cutting attachment	Food Processing
409	Butter packing machines with PLC and VFD	10	20		Food Processing
410	CO2 Screw Packaged Chilling Unit	10	20		Food Processing
411	Vertical Shaft Brick Kiln	40	50	uniform temperature, occupy less space, less drying time, less pollution	Bricks
412	Concrete Block Making Machine with PLC	15	20	Automatic mould change, Continuous level control for silos, Oil temperature control, Frequency controlled vibrators, PLC-control, Online support, Hydraulic system with proportional valve control	Bricks
413	Falling Film Evaporator (Re-refining of Lubricating Oil)	5	10	High heat transfer rate, lower liquid circulation rates (smaller pump), suitable at low temperature difference	Auto components
414	Wiped Film Evaporator (Re-refining of Lubricating Oil)	5	10	Evaporation at low temperature, short residence time, self cleaning or wiping of heat transfer surface, suitable for viscous liquid	Auto components
415	Fine Grinding (CBN Surface Grinding Machine)	10	30	Better surface finish, less material loss	Auto components

416	Gas Fired / Oil Crucible Melting Furnace	5	25	Superior fuel efficiency, precise temperature control, central axis tilting or lip axis hydraulic tilting type furnace are excellent for melting & pouring directly into molds	Auto components
417	CNC Wire Cut	30	50	Good surface finish, high performance in machining	Auto components
418	CNC Milling	30	50	Higher productivity, dimensional accuracy, require less manpower skill, consistency in quality	Auto components
419	CNC Lathe	30	50	Higher productivity, dimensional accuracy, require less manpower skill, consistency in quality	Auto components
420	Gas Based Generator set	5	10	environmental-friendly, economical, high efficient, low emission, low noise and etc., energy saving potential assessed based on energy cost	Auto components
421	Computerized Automatic Electroplating / Zinc Plants	5	10	Help to provide coating on various metals like zinc, nickel, silver, gold, etc., reduce labour cost, improve quality, reduce environment pollution	Auto components
422	Heavy Duty Horizontal Machining Center	30	50	Higher productivity, consistency in quality, excellent finish	Auto components
423	CNC Hydraulic Press Brake	30	50	Improve quality, accuracy & productivity	Auto components
424	Automatic Electrostatic Powder Coating Machine	10	15	Uniform & deep power penetration, higher transfer efficiency, quality finish	Auto components
425	CNC Milling Machine – Vertical Machining Centre	30	50	Higher productivity, consistency in quality, low maintenance	Auto components
426	PVD (Multi-arc Ion) Coating Machine	10	15	Low running cost, higher productivity, less pollution	Auto components
427	CNC 3 Axes Hobbing Machine	25	35	Dry cutting without using coolant, improve quality, improve productivity	Auto components
428	Sealed Quench Furnace (use of Thyristor Power Controller and PLC)	15	25	Prevent oxide formation as treatment is in protective atmosphere, automatic operation of treatment / transfer, quick change-over, require less space	Auto components
429	Paint Shop with Waste Heat Recovery System	15	25	Utilise waste heat, reduce pollution, reduce equipment size, reduction auxiliary energy consumption	Auto components
430	CNC Hydraulic Guillotine Shearing Press	25	30	Cutting angle automatically adjusted to sheet thickness, programmable by CYBELEC control unit, versatile machine	Auto components

431	CNC Turret Punch Press	25	30	Higher productivity, produce variety of components without re-tooling, suitable for regular & repetitive job	Auto components
432	Heavy Duty Injection Pump Test Bench (with Variable Frequency Drive)	15	25	Variable speed drive, expandable compound pulley system, dual belt fitting, auto align	Auto components
433	Continuous Gas Carburising Furnace with Endogas Generator	25	30	PLC automatic system with Hmi & computer controlled	Auto components
434	Electronic Spring Coiling Machines	10	15	High production output, Strict quality controls, state-of-the- art production systems, High availability and Precesion	Auto components
435	CNC Gear shaving machine	50	55	Continuous and efficient operations	Auto components
436	Medium Frequency End- bar Heater	5	15	In built Heat retain system, Digital counter for production, Variable speed, automatic belt driven scanner for forging	Auto components
437	Mechanical Pneumatic Clutch Operated Crank Type Billet Shearing Press (Stock Cutting)	5	15	Higher productivity, lower cutting loss, lesser wear & maintenance, reduce operating cost	Forging and Heat Treatment
438	Pneumatic Double Acting Hammer (Forge shop)	25	30	Higher productivity, less maintenance cost, high forging accuracy, higher blow frequency, easy & safe operation	Forging and Heat Treatment
439	Microprocessor Based Energy Controlled, Pneumatic Clutch Operated, Screw Friction Presses (Forge Shop)	20	30	High productivity, controlled blow pattern, less manpower skill requirement	Forging and Heat Treatment
440	Hydraulic Double Acting Hammer (Forge Shop)	50	55	Precision forging, high productivity, reduce maintenance	Forging and Heat Treatment
441	Multi Station Horizontal Formers (Forge Shop)	30	40	Precision forging to minimise post forging operation, less raw material wastage, high production rate, automation feasible	Forging and Heat Treatment
442	Hot Shearing Automatic Forging Presses (Forge Shop)	15	20	Lower operation cost, require less manpower, high productivity, better control systems	Forging and Heat Treatment
443	Reduce Rolling Machine (Forge Shop)	20	30	Higher productivity, require less manpower, operation at various cross sectional area & length	Forging and Heat Treatment
444	Gas Fired High Temperature Furnace with Automatic Temperature Controller & Recorder (Heat Treatment)	10	15	Reduce scale loss, facilitate automation, quality improvement	Forging and Heat Treatment
445	Medium Frequency Induction Heaters (Heat Treatment)	5	10	Rapid heating and quenching, less oxidation loss, improve quality, low operating cost,	Forging and Heat Treatment

446	Natural Gas Fired Power Generating Set (Utility)	30	60	Eco-friendly, low power generation cost, high fuel efficiency	Forging and Heat Treatment
447	CNC Turning Center (Tool Room)	20	25	Precision machining, improve quality, higher productivity	Forging and Heat Treatment
448	Electro Discharge Machine (Tool Room)	40	50	Precision machining, improve quality, higher productivity	Forging and Heat Treatment
449	CNC Wire Cut Machine (Tool Room)	15	30	Suitable to cut intricate shapes and tight radius contours, precision machining, better dimensional accuracy with high quality surface finish, improve quality	Forging and Heat Treatment
450	Fully Automatic CNC Injection Moulding Machine (Tool Room)	30	50	Better tolerance & accuracy, improve repeatability, produce smooth & finished products that require no further finishing	Forging and Heat Treatment
451	Cold Forging Bolt Former	40	55	Produce no material waste, high product strength, high productivity	Forging and Heat Treatment
452	Thread Rolling Machine	20	30	Increase in material hardness, smooth surface finish, chip not formed	Forging and Heat Treatment
453	Friction Drop Hammer	15	20	Suitable for precision forging, longer durability	Forging and Heat Treatment
454	Metal Gathering Machine	40	50	Simultaneous heating & forming, lower material wastage, no heat / fume / exhaust gases emitted, minimise scale loss	Forging and Heat Treatment
455	Knuckle-Joint press	15	20	High quality precision parts with optimum surface finish, longer tool life, increased productivity, lower unit cost	Forging and Heat Treatment
456	Hot Top Casting Machines (Continuous Casting)	10	15	Easy to operate and maintain, Energy efficient, Higher Productivity, Immediate casting speed and length, manual controlling system in case of electricity is off, More durable and smooth working	Forging and Heat Treatment
457	Automatic Centrifugal Casting Machine	50	60	Low Power Consumption, In built safety logic, Computer Controlled Automatic Operation, better position accuracy	Forging and Heat Treatment
458	Hydraulic / Pneumatic Automatic Counter Moulding Machine	20	25	Fast production rate, high accuracy, less wastage	Leather
459	Automatic Seat Lasting Machine (Heel Seat Lasting)	10	15	Accurate & faster, require less space, require less manpower	Leather
460	Automatic Pounding Machine	40	50	Improves quality of the final products.	Leather

461	Automatic Buffing & Roughing Machine with Microprocessor Control Mechanism	20	30	Precision buffing operation, fast production rate	Leather
462	Automatic Combined Rougher and Cementer (Buffing and Adhesive Application)	30	40	Both operations by one machine, require less space, fast production rate, reduce adhesive wastage	Leather
463	Cement Dryer & Flash Activator Machine (Drying and Reactivation)	10	25	Increase production rate, better drying quality	Leather
464	Thermo Cementing Machine for Upper & Sole	10	25	Reduced wastage of adhesive, accurate operation	Leather
465	Mackey Sole Stitcher	30	40	Fast production rate, better accuracy & product finish	Leather
466	Fine Turning machine (for Last)	20	35	Increases production rate	Leather
467	Roughing Machine for Plastic Blocks	10	15	Increases production rate	Leather
468	Computerized Lasting Turning CAD/CAM CNC Controlled Machine Including Designing and Interface Software	20	30	New product development, accurate copy of sample last, programmable cement distribution	Leather
469	Hydralic Automatic Press Moulding Press	20	30	Optimum performance, easy to operate	Leather
470	Automatic Injection Soling Moulding Machine	30	50	High Performance, durability and quality	Leather
471	Single/Double width Fleshing Machine	10	20	Accurate product quality, high productivity	Leather
472	Single/Double width Uhairing Machine	10	20	Accurate product quality, high productivity	Leather
473	Through Feed Double width Machine (Shaving)	30	50	Higher precision product, improve leather grade	Leather
474	Through Feed Double width Machine (Setting)	10	20	High productivity, produce better leather quality	Leather
475	Double Width through Feed Splitting Machine (Splitting)	30	40	High precision, high productivity, produce better leather quality	Leather

476	Vacuum Dryer	15	25	Uniform & better drying, shorter drying time	Leather
477	Hydraulic Press with Automatic Time and Temperature Controller	20	40	Easy to operate & maintain, high productivity	Leather
478	Auto Spray with Dryer	15	20	Uniform spraying & drying, pattern control, fine atomization, high production rate	Leather
479	Variable Frequency Drive for Pumps for Hot & Cold Water Supply (Pre- tanning Section)	30	40	Extend equipment life, reduce maintenance, reduced peak demand, safety against power fluctuation	Leather
480	Steam Heating (Replace Electrical Heating)	10	20	Steam can be distributed throughout a heating system with little change in temperature, terminal units can be added or removed without making basic changes to the design	Leather
481	Variable Frequency Drive for Hydraulic Oil System in Vacuum Drier	30	40	Extend equipment life, reduce maintenance, reduced peak demand, safety against power fluctuation	Leather
482	Combined Through Feed Single/Double width Buffing Machine with Dusting Operation	10	15	Accurate buffing operation, easy to operate	Leather
483	Roto Press and Roto Print	30	40	Uniform pressing	Leather
484	Energy Efficient Chiller	25	30	Low specific power consumption	Leather
485	Edge Trimming Machine	10	15	Low specific power consumption, Machine suitable to trim and round the edges of shaped (curved) belts by horizontal blades, Various size of shaped blades, Trimming and rounding of belt edges, Speed variator	Leather
486	Flash Dryers or Rotary Vacuum Dryers (Product Drying)	28	50	Low cost instant drying with no pulverizing, low initial investment as compared to spray dryer, control batch drying process, control of material temperature	Pharmaceutical & Bulk Drugs
487	Use of Biomass Gasifier with Slurry Economizer (Incinerator)	50	60	Utilize agricultural & industrial waste, heat recovery system, eco-friendly, carbon credits can be earned	Pharmaceutical & Bulk Drugs
488	Nauta Mixers (Blenders)	15	20	Grains do not break, no manual charging / discharging, shorter mixing time, easy addition of liquid & cleaning	Pharmaceutical & Bulk Drugs
489	Blister Packing Machine (using Variable Frequency Drive)	30	35	Reduce edge cutting wastage, improve blister quality	Pharmaceutical & Bulk Drugs
490	Semi Automatic Capsule Filling Machine (with AC Frequency Drive)	20	30	PLC controlled, loader disengaged automatically, different speed to fill different type of powder / pellet, drug hopper design reduce time to dismantle / unload powder, auto-drug hopper feed-in mechanism reduce weight variation & improve productivity	Pharmaceutical & Bulk Drugs

491	Variable Frequency Drive for Fluidized Bed Boiler Blower	30	40	Extend equipment life, reduce maintenance, reduce peak demand, safety against power fluctuation	Pharmaceutical & Bulk Drugs
492	Regenerative Furnace & Refractory Recuperator	25	35	High flame temperature, lower emissions	Pharmaceutical & Bulk Drugs
493	Co2 Flue Gas Recovery Plant Based on Flue Gas System	25	30	Less corrosive effect on inner surface, carbon credits can be earned	Pharmaceutical & Bulk Drugs
494	Flaker with Silo and Screw Conveyer (Ice Flaker)	5	10	Automatic operation, no spillage, no water, no latent heat loss	Pharmaceutical & Bulk Drugs
495	CNC Precision Forming machine	45	55	High-Speed positioning, Sleek Design, High Accuracy, Precision welded frame construction for maximum strength and rigidity, adjustable bending speed, High resolution.	Pharmaceutical & Bulk Drugs
496	Programmable Dosing and misting Systems	30	35	Speed-controlled gear motor with speed display and adjustment through the display, Monitoring of the component pressure using the digital display	Pharmaceutical & Bulk Drugs
497	Submerged Mechanical Aerator/Agitator (Aquarator)	30	40	Easy maintenance, accommodates various processing methods, achieves homolytic aeration mixing, no settling sludge and no clogging	Pharmaceutical & Bulk Drugs
498	Blast Furnace Hot Stove Heat Recovery	10	15	Improve combustion heat efficiency	Mini Steel
499	Power Generation from Blast Furnace Exhaust Gases	15	20	Reduce auxiliary energy usage, reduce emissions	Mini Steel
500	Sinter Cooler Waste Heat Recovery	35	55	Reduce coke consumption, reduce emission, can avail carbon credit, applicable for circular type or linear type cooler	Mini Steel
501	Coke Dry Quenching	50	60	Improve on coke quality & strength, reduce water usage	Mini Steel
502	Waste Gas Recovery from Oxygen Converter	20	30	Lower carbon monoxide emissions	Mini Steel
503	High Efficiency Combustion Control System in Pre-Heating Furnace	5	15	Furnace calibration is not required, less furnace maintenance	Mini Steel
504	Heat Recovery from Blast Furnace Hot Stove Waste Gases	40	50	Improve combustion heat efficiency, preheat combustion air / fuel gas for blast-furnace hot stove	Mini Steel
505	Coiler /Decoiler	25	40	Clear Cost advantage, User friendly	Mini Steel

506	HR Galvanizing Line (with PLC based control system and variable speed drives)	5	10	Inline skin pass mills	Mini Steel
507	High Efficiency Industrial Furnace in Aluminum Factory	20	30	Regenerative burner system, advanced software based operator & management automatic system, reduce system maintenance	Foundry
508	Electrical Resistance Heat Treatment Furnace	20	30	Made with imported heating element and refractory, Higher thermal insulations ceases heat loss	Forging and Heat Treatment
509	Manganese Steel Heat Treatment Furnace with Recuperator	25	30	Less Heat Loss	Forging and Heat Treatment
510	Hi Chrome Grinding Media Oil Fired Heat Treatment Furnace with Recuperator	10	30	High Durability, Ultimate performance	Forging and Heat Treatment
511	Wire Drawing (with Variable Frequency Drive Control)	10	30	Better productivity, Easy operation and faster threading	Wire Drawing
512	Spooling Machines (with Variable Frequency Drive Control)	10	30	Enhanced Productivity and energy saving	General Engineering (Electricals)
513	Oxygen Plant (Manufacture of Oxygen and Nitrogen by Air Separation Method)	20	25	Capable of simultaneously producing oxygen and nitrogen, easy access for maintenance, better life	Pharmaceutical & Bulk Drugs
514	High Speed Metal cutting band saw with PLC and VFD control	20	30	Antifriction LMG, Electroinc Automatic Feed Regulation, auto cycle sequencing with electronic PLC	General Engineering (Electricals)
515	Dual Layer Aluminium Colour Coating and Baking Line	5	10		Foundry
516	Multi Layer Film Extruder	25	30	Lower cost and shelf appeal	Plastics & Polymers
517	Solvent Less Lamination Machine	16	20	Equipped with Oil heating units with auto temperature controllers, Shaft-less non-winder and reminder	Plastics & Polymers
518	Servo Motor Plastic Injection Machine	30	55	Better molding stability, lower cycle time	Plastics & Polymers
519	PET Moulding Machine	40	45	Fast production rate, uniform production quality, require less manpower	Plastics & Polymers
520	Fully Automatic Micro Processor Controlled Plastic Injection Moulding Machines	40	50	Homogeneous force applied, improve productivity, reduce wastage	Plastics & Polymers

521	PLC Controlled Hydraulic Press	5	10	Productivity improvement, improve quality, easy to operate	Plastics & Polymers
522	Pultrosen Machine	10	20	Productivity improvement, improve quality, easy to operate	Plastics & Polymers
523	Infra Red Heaters/ Oven	30	40	Reduce cycle time	Plastics & Polymers
524	Microprocessor Controlled Fully Automatic Extrusion / Injection Blow Moulding Machine	10	20	High productivity, imporve quality	Plastics & Polymers
525	Plastic Injection Molding Machine with Variable Pump	20	30	Eliminate voltage dip, reduce starting shock on motor / coupling / gear, improve process control, reduce motor heating / stress	Plastics & Polymers
526	Fully Automatic- HM/ LDPE (using Variable Frequency Drive)	30	35	Low Power Consumption with high output,Compact Design- Space Saving Device	Plastics & Polymers
527	Corona Treater (using Advanced IGBT Technology)	10	20	Easy thread-up, quick installation, comfortable to operate and simple maintenance	Plastics & Polymers
528	Slitting Machine (Using AC Frequency Drive)	30	35	Shafted unwind stand,Choice of razor or shear cutter	Plastics & Polymers
529	Pneumo Hydraulic Edge Guide System	15	20	Designed for high response and accuracy, Suitable for unwind / rewind / intermediate guiding	Plastics & Polymers
530	Three Layer Brown Film Plant (using Variable Frequency Drive)	15	20	Increasing flexibility and shortening production schedule and cost effectiveness	Plastics & Polymers
531	Standy Zipper Pouch Making Machines (using AC Frequency Drives)	20	30	Servomotor for indexing and accuracy,P.I.D. base temperature controller	Plastics & Polymers
532	Rotary Cap Compression Moulding Machine	15	30	Higher Productivity,High Finish,No Colour Streaks,Low Production Cost	Plastics & Polymers
533	Laminated Tube Body Maker Machine	10	15	PLC controlled with easier operation	Plastics & Polymers
534	Screwing Cap Machine	10	15	PLC controlled making the machine work more accurately and steadily	Plastics & Polymers
535	Thermoforming Sheet Extrusion Machine (using Variable Frequency Drive)	10	15	Specially designed winding system, lowest manufacturing cost	Plastics & Polymers

536	Thermoforming Machine with Infra-red Heaters (using Variable Frequency Drive)	35	40	Fully automatic Servo controlled PLC system and heavy duty hydraulic system, low maintenance and trouble-free longer runs	Plastics & Polymers
537	Scrap Grinder	15	20	Superior design and proven reliability	Plastics & Polymers
538	Automatic Strap Bend Making Machine	25	30	Gears are hardened and precision ground for quiet running performance, SACMI barrel is nitrogen treated, precision ground, and stress relieved	Plastics & Polymers
539	Automatic High Speed Bag Making Machine	45	55	Greater flexibility and higher outputs	Plastics & Polymers
540	Flex Lamination Machine	10	15	Good production with smooth surface	Plastics & Polymers
541	Bottom Seal Bag Packing Machine (with Micro Processor Controlled)	20	25	Equipped with Servo Motor for indexing and Accuracy, tension free Web for Strong Sealing	Plastics & Polymers
542	Plastic Injection Machine (with Variable Pump)	15	35	Increased performance, while highly flexible use is guaranteed by the quick-change plasticizing unit, which can be replaced in a few minutes	Plastics & Polymers
543	Production line for manufacturing of laminated panels	15	25	Equipped with PLC control system which helps to set length and provide accurate automatic cutting	Plastics & Polymers
544	Slow Speed Granulator	25	35	Fast and easy operation, various blade sizes are available to help create re-grind that flows smoothly into production	Plastics & Polymers
545	Fully automatic strap band making machine	15	25	Automatic operation and labor saving, High production.	Plastics & Polymers
546	Automatic Splicer Machine with PLC controls	30	35	Increased productivity, greater quality control and reduced waste	Plastics & Polymers
547	PLC based tape stretching line	45	50	The stretching line is designed to meet the highest performance and quality requirement with maximum efficiency and flexibility while using minimum raw material and energy	Plastics & Polymers
548	High Frequency Plasting Welding Machine/ Embossing Machine	41	50	High efficiency, small land cover, simple operation, equipped with electrode and product protection device	Plastics & Polymers
549	Plate Extruder Line	20	25	Reduced energy consumption, good plasticization, high temperature precision, easy operation, high output	Plastics & Polymers
550	Rotating Twin Screw Extruder	15	20	Energy Efficient operation, Modern available speed range, Direct torque control based on digital drive controllers, Advanced computer aided design and manufacturing using CNC control system	Plastics & Polymers

551	High Speed Heater Mixer (with VFD and Screw Conveyor)	20	30	Efficient production without cross-contamination and free from moisture, Economic operation with lowest compounding cost, Lower scrap rate, Compact space saving system with the highest specific throughput, Least down time.	Plastics & Polymers
552	Water Pelletizing System	50	60	Less Energy Consumption, Low noise, Low scrap due to Automation & clean operation, Low tool cost, variable tool speed & Automatic tool readjustment, Fully automatic and closed loop system	Plastics & Polymers
553	Bitumen Membrane Forming	10	30	Energy efficient operation with Higher productivity & higher accuracy	Plastics & Polymers
554	Conical Twin Screw Extruder with Variable Frequency Drive	30	40	Reduced energy consumption, Screw temperature control system, Good product quality, Easy operation, High output	Plastics & Polymers
555	Auto Woven Bag Cutting & Sewing (with inverter control)	10	15	Upgradation to work on LENO fabrics, On-line Handle/Hole Punching System, Easy open type sewing attachment, On-Line bag inspection Arrangement	Plastics & Polymers
556	3D Blow Moulding Machine with PLC control system	50	55	It offers minimum flash production achieving significant, savings in material, energy, usage, cycle times and, in capital spending	Plastics & Polymers
557	Blown Film Plant with VFD	10	20	Equipped with VFD	Plastics & Polymers
558	Extrusion Lamination Plant with VFD	10	20		Plastics & Polymers
559	Pusher Type Reheating Furnace with Suspended Roof, Multi Fuel Capacity and Automated Temperature Controls	20	30	Reduce scale loss	Steel Re-rolling
560	AC and DC Drives for Control of Fuel and Air	10	30	Eliminate voltage dip, reduce starting shock on motor / coupling / gear, improve process control, reduce motor heating / stress	Steel Re-rolling
561	Semi Automatic High Speed Rolling Stands with DC Drives	20	30	Eliminate voltage dip, reduce starting shock on motor / coupling / gear, improve process control, reduce motor heating / stress	Steel Re-rolling
562	Oxygen sensor and monitoring system for reheating furnace	10	15	Significant reduction in scale loss	Steel Re-rolling
563	Shell in Shell type recuperator for reheating furnace with modified pulverized coal firing system	10	15	Uniform temperature profile, reduced flue gas temperature	Steel Re-rolling
564	Automatic Corrugated Making Plant	30	35	High productivity, better quality, lesser space & manpower requirement, high reliability	Packaging
565	Thermic Fluid Boiler or Steam Boiler using Agri Residue	50	60	Fuel flexibility, heats roll uniformly	Packaging

566	Web Based Coating Machine for Water Based Coating	20	30	Eco-friendly, recyclable, free from fire hazard	Packaging
567	Multi Colour Flexo Printer Slotter for Flexographic Printing	30	40	Faster drying, large size printing	Packaging
568	Automatic Corrugated Board Plant with Printing Die Cutter using Thermic Fluid for Heating	30	35	High productivity, better quality	Packaging
569	Fully Automatic PLC Hydraulically Operated Moulding Machine	15	20	Higher productivity, better quality, simple operation	Packaging
570	Automatic Board Plant	25	30	Less space & manpower requirement, higher productivity	Packaging
571	Folder Gluer Machine	15	20	Instant drying, simple to operate & maintain	Packaging
572	High speed Automatic Board Line & Converting Line	30	35	Less space & manpower requirement, higher productivity	Packaging
573	Folding machine	5	15	Modular design with maximum flexibility and productivity	Packaging
574	Sticker labeling machine	10	15	Accurate labeling, Minimum Glue consumption, Labour saving, Minimum maintenance	Packaging
575	Assembling Machine	10	15	Capable of processing Multicomponent closures (up to 5 pcs.) with output rates between 7.000 and 60.000 pph.	Packaging
576	Lining/Wadding Machine	10	15	The machine is equipped with PLC system and an AC Converter (Inverter) that makes the machine adapt its speed automatically with the caps feeder's production.	Packaging
577	Automatic water slotter with variable frequency drives	10	15	Wear-free, frequency controlled motors with long operation life, Pneumatic clamping system for safe material clamping, No adjustment needed for similar profile types	Packaging
578	Aluminum Foil Sealing and screwing cap machine	10	15	The machine adopts PLC system to make it perform more accurately and stably	Packaging
579	Automatic 5 Ply plant	25	30	High speed operations, Reliable performance, Smooth operations, long functional life	Packaging
580	Three Layer Blown Film Plant	25	30	Equipped with advanced CAD Design dies to ensure uniform flow distribution, excellent melt characteristics and film quality	Packaging

581	Packing and Bundling Machine (inverter based & PLC controlled)	30	40	Reduction in Energy consumption, Easy operation and maintenance, Quick & easy roll changes, Heat Sealing	Packaging
582	Computer Controlled Curved Bag making Machine	45	55	Energy efficient operation with PLC wide screen LCD display, AC Servo fixed length control systems, Frequency converter for the main speed and with PWM control mode adopted, Automatic counting, Makeup counting, Pre-set topping, Idle cutting, Material returning	Packaging
583	Computerized High Speed PVC Sleeve Seaming Machine	15	20	High performance of control system and mechanical structure, Stable operation of the machine, High work efficiency, Ideal equipment for middle sealing and sticking of mark.	Packaging
584	Fully Automatic High Speed PVC Label Cutting Machine	15	20	Energy Efficient process with PLC system, Three phase AC servo fixed length control system, Main speed is controlled by inverter in the way of PWM, Concave and protruding cold cutting knife, Photocell fixed length tracing device, Air expansion shaft at unwinding, Magnetic powder strength control.	Packaging
585	Cutting machine with variable frequency drive for aerosol can packaging line	20	30	High productivity, less skill requirement, Consistency in quality	Packaging
586	UV LED Printer	50	60	They produced incredibly crisp text and vibrant, full-color images with outstanding solvent and abrasion durability on a variety of substrates, user friendly	Packaging
587	Roller Coating Machine with VFD	20	35	Increased Productivity, Compact Machine, Smooth Operation	Packaging
588	Semi-automatic Auger Filler machine with PLC control and servo drive	25	40	Easy Maintenance with air vent and balloon and visible window glass	Packaging
589	High Speed Pneumatic Operated Bagging Machine with AC drive and PLC control	20	30	Flexible, Less Maintenance equipped with self diagnosis system	Packaging
590	Rotary Piston Filling & Sealing Machine	20	30	Compact, versatile machine, easy operation	Packaging
591	Automatic High Speed gum labeling machine with AC drive	20	30	Adjustable conveyor height, Minimum changeover time required, No container- No label, an electrical sensing device avoids wastage of labels, it also helps in keeping the unit neat and clean	Packaging
592	Auto self adhesive labeling machine with PLC Control	10	30	Product data storage facility, No change parts requirements, Very less down time for change over, Suitable for Glass, Plastic, Pet, Tin, Corrugated containers.	Packaging
593	Fully Automatic Tube Filling & Sealing Machine with VFD	20	30	Reliable and durable with high performance and low maintenance	Packaging
594	Automatic Stretch wrapping Machine	10	20	Durable standards, easy installation, tough construction and low maintenance	Packaging

595	Combined Rotary Creaser Slotter Machine	30	50	Reduced energy consumption, higher production, faster operation	Packaging
596	Automatic Cutting and sealing Machine	30	50	Good quality sealing, increased productivity, low energy consumption	Packaging
597	Full Servo Sanitary Napkin Machine	20	30	PLC controlled and servo driven	Packaging
598	Direct Drive PLC based Continuos Carton Making Machine with Automatic Feeding and Packing features	10	15	High output, continuous motion, PLC based automatic horizontal Cartoning Machine	Packaging
599	PVDC Coating Machine with Lamination Attachment	10	15	Pneumatic pressure roll system, Lay on roller	Packaging
600	High Speed Automatic Flat Bed Die Cutting Machine	10	15	Centerline tool alignment system, Double cam gripper bar	Packaging
601	Fully Automatic Foam Moulding Machine	20	30		Packaging
602	Vertical Form, Fill and Seal Machine with Multi Head Weigher	10	15	Single line set-up, minimisation of waste	Packaging
603	Foam Plant & Laminator Machine	10	15		Packaging
604	Double Chamber Vacumm Packaging Machine	15	20		Packaging
605	Automatic Flute Laminating Machine with Variable Frequency Drive	15	25	VFD for efficient operation, PLC/Micro-processor controls, Automatic feedking for bottom sheet	Packaging
606	Roto-cure Machine	20	30	Continous production, wastage minimum, high productivity	Rubber
607	Cold Feed Extruder	40	50	Rubber compound warming operation prior to extrusion is avoided, required less space	Rubber
608	Multi Channel Extruder	15	20	Rubber band manufactured from dry rubber	Rubber
609	Thermic Fluid Heaters	10	15	Uniform heating, automatic control setting, operational flexibility	Rubber

610	Fully Automatic Vacuum Hydraulic Machine (with PLC control)	30	40	Enhanced Productivity and efficiency	Rubber
611	Rubber Injection Moulding Machine with Electronically Controlled Hydraulic Pump	25	30	Accurate process control and high productivity	Rubber
612	PLC – Rubber (Plastic) Dispersion Mixer	25	30	Excellent cooling efficiency, Easy maintenance	Rubber
613	Rubber Mixing Mill with stock blender	20	30	Provides safer working conditions, low material temperature and high mixing rate of the compound	Rubber
614	Rubber Mixer	20	30	Equipped With Peripheralled Drilled Rolls, Heavy Duty Type With Higher Safety Factors	Rubber
615	Rubber Oil Seal Vulcanization Molding Machine with PLC control	20	30	Shorten curing time, increases production efficiency, High speed vacuum system	Rubber
616	Fully Automatic Activated Carbon Manufacturing Line	15	20	Grinding of Tyres as feedstock, Use of PLC driven systems	Rubber
617	Laser Technology Duplicating Machines, Pantographs, etc. for sculpting and duplicating artwork and monuments	5	10	Capability to mass- produce intricate product patterns, high precision	Stone Cutting
618	CNC Diamond Faceting Machine for Bangles & Rings (with Laser Sensor)	45	55	Equipped with CNC controller, variable AC drives and AC servo motors to ensure life long maintenance free working, CNC controller is compatible with leading CAD/CAM softwares	Stone Cutting
619	Fancy round chain cutting machine (With PLC and variable speed drive)	20	30	Equipped with AC motors and AC drives to ensure maintenance free working, Coupled with variable AC drives for speed variations	Stone Cutting
620	CNC controlled Ice Diamond cutting machine for chains Ice	45	55	Equipped with energy efficient AC motors, Speed control using variable AC drives, High precision	Stone Cutting
621	Jewelry Laser Spot Welding Machine	15	20	Smart size, easy operation, welding spot is firm and nice. Equipped with microscope for monitoring makes sure the welding spot is more accurate. Specialized appearance improved comfortableness for the operating personnel	Stone Cutting
622	Ultrasonic cleaning machine	10	15	High intensity cleaning action with optimum efficiency, Economical, safe and compact procedure, efficient cleaning of metal, plastic, ceramic, alloys etc	Stone Cutting
623	Vacuum Metallising machine	30	40	Compact structure, low energy consumption, small volume and easy operation	Stone Cutting
624	Auto Infrared- Bridge Cutting Machine	15	20	High efficiency, Fully automatic crossbeam displacement, Simple and convenient operation, High degree precision, Stable performance, Good adaptability and High reliability	Stone Cutting

625	Automatic Cutting Machine	30	40	Easy Operation and low maintenance	Stone Cutting
626	Gang saw Machine	15	25	Easy to use, glitchfree operation	Stone Cutting
627	Automatic Coil Winding Machine	10	15	Material saving, improve insulation, choice of coil packaging methods	Manufacturing of Electrical Equipments
628	Vacuum Impregnation plant	10	15	Reduce rejection, high productivity, longer equipment life	Manufacturing of Electrical Equipments
629	Semi Automatic Press	8	15	Variable displacement with high performance, high productivity	Manufacturing of Electrical Equipments
630	Automatic CNC Core Cutting Machine	45	50	Reduce rejection, high productivity, longer equipment life	Manufacturing of Electrical Equipments
631	Hi Speed Precision Power Press with Computerized Control	15	20	High indexing accuracy, less noise & vibration, high productivity, require low maintainence	Manufacturing of Electrical Equipments
632	Vacuum Impregnated Plant	10	15	Reduce rejection, high productivity, longer equipment life	Manufacturing of Electrical Equipments
633	Automatic/CNC Coil Winding Machine	10	15	Material saving, improve insulation, choice of coil packaging methods	Manufacturing of Electrical Equipments
634	Temperature Control Drying Oven	5	10	Produce better quality, long equipment life, low heat loss	Manufacturing of Electrical Equipments
635	Amorphous Metal Core Transformers	40	50	Improve efficiency at no & low load condition	Manufacturing of Electrical Equipments
636	CNC Core Cutting Machine	40	50	High precision & dimensional control of product	Manufacturing of Electrical Equipments
637	Natural Gas Based Oven	10	15	Reduction in no load losses, decreased rejection rate	Manufacturing of Electrical Equipments
638	Microprocessor Based Electric Furnace	5	10	High reliability, better quality production, measurement & controls / alarm	Manufacturing of Electrical Equipments
639	Plasma Cutting Inverter	50	55	Light weight, more powerful, longer life, higher reliability, quality cutting	Manufacturing of Electrical Equipments

640	Catalytic Enamelling Machine	20	30	Improve product quality, require less manpower	Manufacturing of Electrical Equipments
641	Extruder with Temperature Control, Pre-heating, Speed Control	30	40	Improve coating for better insulation	Manufacturing of Electrical Equipments
642	Multi Color Offset Machine	40	50	High productivity, four color printing in single operation, higher flexibility in operation, require less space	Printing
643	Programme Cutting Machine Computerized Control	40	50	Longer equipment life, ease of operation	Printing
644	Fully Automatic Folding Machine with Computer Control	40	50	High productivity, less wastage, low vibration	Printing
645	Auto Control Punching Machine with Computerized Control	10	20	Better accuracy, smooth operation	Printing
646	Lamination Machine with Computerized Control	30	40	Accurate operation, short chageover time, improve quality, versatile application	Printing
647	Thermal Lamination Machine Computerized Control	30	40	Accurate operation, short chageover time, improve quality, versatile application	Printing
648	Multi Colour Rotogravure Printing Machine	30	40	Enhance printing quality & speed, less rejection, high productivity	Printing
649	Flexographic Printing Press with Inverter Speed Control	30	40	Motor speed control by inverter	Printing
650	Adhesive Label (logo) Die-cutting	30	40	Better accuracy, less wastage, flexible operation	Printing
651	Digital Colour Press	15	20	On demand color printing, high quality	Printing
652	Fully Automatic Flat Bed Screen Printing Machine with 12 Colors	40	50	Improve production rate, smooth operation, high precision colour registration	Printing
653	8 Colour Paper Printing Machine with Auto Registration System	40	50	Minimise wastage, better printing quality, easy operation	Printing
654	Programmable High Speed Cutter	20	30	Easy operation and high longevity	Printing

655	Stahlfolder (Folding Machine)	20	25	Maximum flexibility and productivity	Printing
656	CPT UV Shatter Machine	15	20	Its modular platform design enables the UV- Setter to grow with your changing needs, and can be reconfigured and adapted to new operational requirements at any time, easy to operate	Printing
657	Violet Photopolymer CTP	30	40	High resolution; High sensitivity; Strong developer compatibility; Long run length; Stable quality;	Printing
658	Auto Color Registering Controller	20	25	Suitable for Multicolor Gravure Printing Press for Length & Side lays Control. Precise and faster correction	Printing
659	Micro Processor Controlled Doctoring Machine	20	30	Two servomotor drive system providing the most accurate winding control	Printing
660	Slitting Machine	40	50	Two servomotor drive system providing the most accurate winding control	Printing
661	Flex Printer	30	35	Highest printing speed of the same level printer	Printing
662	Coding Machine	15	20	Ease of use with advanced vision technology	Printing
663	Ultra Violet Acqua Card Board Varnish Coating Machine	20	25	The machine is fitted with roller bearings, which ensure smooth and light running of machine	Printing
664	Ultra Violet Curing Machine along with Infrared Dying	15	20	High efficiency and precision functioning	Printing
665	Web Offset Printing Machine	15	20	Automatic adjustment for registration of 4 colours on each side of web, Variable speed motorised dampening, fitted with disconnection clutch	Printing
666	Digital Inkjet Printer	30	40	Simple Design. Lower cost and high quality prints	Printing
667	CNC controlled Copam cutting plotter and Photocopier	35	40	Stable and high quality	Printing
668	Laser Marking Machine	15	20	Fast and Accurate Solution	Printing
669	Image press	15	25	High Productivity, high speed and high image quality	Printing

670	Canon imageRUNNER ADVANCE	15	25	Productive printing, Intuitive user Interface, Multifunctional device	Printing
671	Canon Oce VP6000 ULTRA LINE	15	25	High Productivity	Printing
672	UV Setter CTP	15	20	Keyless inking, single fluid system, Less paper waste, Simple press operation with less manning, Less paper waste, Prints on super- calendered and coated stock without expensive dryers, Reduced set-off and show- through- prints on thinner newsprint, Excellent ink consistency.	Printing
673	Edge Inking Machine	10	20	Energy efficient operation with easy change of jigs, Easy system of cleaning and replacement of colour, Adjustable spraying pressure and quantity of colour, Variation of drying time and spraying, Vacuum system of airborne particles of colour, Jigs according to the different types of pieces to work.	Printing
674	Three Color Dimensional Wood Texture Printing Machine with Microprocessor control	10	25	Equipped with AC Variable Frequency Drive, All operations run with microprocessor control which ensures automatic operations of machine.	Printing
675	Inking Machine	30	40	Low specific power consumption, Wedge inking device by belt, Possibility to die straight, Variable speed, Working adjustment by control panel, Emergency switch, Easy removable of colouring device for cleaning.	Printing
676	LP or NG based Gas Dryer	25	30	Highest Production Capacity, Temperature Consistency and High Efficiency	Printing
677	Three/ Multi Clamp Perfect Binder	10	15	Automatic Glue Temperature Control, Inhouse Perfect binding saves time money, having total control over quality and delivery	Printing
678	Thermal CTP (Computer-To- Plate)	30	40	Increased Productivity, Improved Serviceability, stability, easy maintenance and excellent imaging	Printing
679	UV Dryer	30	40	Highest Production Capacity, maximize dryer capacity and minimize per-unit cost	Printing
680	High Speed offline Three Knife Trimmer with PLC Control	20	30	Versatile, Userfriendly, Superior Trim Quality, Ripple free cut	Printing
681	High Speed Large Format Printer	10	20	High speed dye sublimation printer, larger capacity ink tanks, equipped with after-heaters	Printing
682	Infrared Irradiation	5	8	Heats directly the object by radiation thus no energy loss in heating air medium	Cross-sectoral - Electrical
683	Sludge Combustion Boiler	2	5	Easy and flexible operation, complete inertization of the residues	Textiles
684	High Efficiency Automatic Door	2	3	Protection from noise, dust & dirt, reduce air conditioning and heating load	Commercial Buildings

685	High Efficiency Automatic Revolving Door	2	3	Protection from noise, dust & dirt, reduce air conditioning and heating load	Commercial Buildings
686	Woody Textile Insulator	5	8	Highly absorbent, reinforce plastics, excellent acoustic insulation, non- flammable, easy to use, flexible and crack- resistant, ideal for cyclone & earthquake prone areas	Commercial Buildings
687	Other Building Material Contributing to Increased Heat Insulation Performance of Building & Building Equipment	5	8	Reduce heat ingress, make HVAC more effective, resistant to moisture, resistant to air infiltration	Commercial Buildings
688	Insulation for Furnace	3	9	Reduce heat loss, improve safety, better temperature control, prevent damage to equipment from exposure to fire or corrosive atmosphere	Glass
689	Alumina Brick Insulation for Electric Arc Furnace	3	5	Reduce heat loss, improve safety, better temperature control, prevents damage to equipment from exposure to fire or corrosive atmosphere	Ceramics
690	Improved Insulation for Ring Chamber	3	5	Minimizes condensation,Protects air ring chamber	Ceramics
691	Conversion to Fluidized Bed Combustion Boiler from Stoker Boiler	5	8	Less corrosion and erosion, easier ash removal, low excess air, fast response to load fluctuations, use of low grade fuel	Pulp and Paper
692	Synthic Flat Belt Drives (Replace V-belts)	4	8	Extraordinary tensile and high frictional co- efficient, light weight and narrower width reduce shaft load	Textiles
693	Fluidised Bed Combustion Boiler (replacing Stoker Boiler)	2	4	Efficiency improvement by 70-79	Textiles
694	Water-tube Boilers (by Replacing Conventional Smoke-tube Boiler)	2	5	Higher steam output, higher pressures & higher temperature	Textiles
695	Energy Efficient Motor	3	7	Longer life, lesser maintenance, less vibration and high reliability	Textiles
696	Ceramic Fiber Insulation for Batch Furnaces	2	4	Reduce surface temperature, minimised convection & radiation losses, improve safety	General Engineering (Thermal)
697	Conveyerised Powder Coating Curing Oven	2	5	Precise temperature control, longer functionality	Auto components
698	Coal Moisture Control System	6	9	Improve coal quality	Mini steel
699	Provision of IR Sensors for Material Movement	3	7	Quality improvement, waste minimization	Steel re-rolling

700	Dry Type Starter for Slip Ring Motor	4	5	Simple, easy to understand technology, high reliability, low maintenance	Steel re-rolling
701	Liquid and Gaseous Fuel Ratio Controllers (Ratiotrols)	5	10	Reduce scale loss	Steel re-rolling
702	Heating and Pumping Units	5	10	Improve combustion efficiency	Steel re-rolling
703	High Efficiency Burners with Multifuel Capacity	5	10	Multi fuel handling capacity	Steel re-rolling
704	Automation and Control System	5	15	Automation and control system provides effective monitoring of process and utility for better resource utilization and loss reduction	Cross-sectoral - Electrical
705	Automation of Withering Troughs	10	15	The automation of withering trough will ensure achieve optimum temperature and ensure effective control thereafter for proper withering of tea leaves	Cross-sectoral - Electrical
706	Combustion Control System for Boiler	15	20	Combustion control system in boiler provides effective monitoring of flue gas parameters, their temperature and pressure for complete combustion	Cross-sectoral - Electrical
707	Energy Management System	15	30	The EMS is effective in managing energy flow and consumption, reduce wastage and do necessary rectification in case of any fault	Cross-sectoral - Electrical
708	AI&ML based IoT platform for Energy and Asset management	15	20	AI&ML based IoT platform is a full-featured, cloud-based asset and energy management solution for reducing risk and down-time, optimizing cost, time, and energy across buildings & cities. The Alpowered platform is designed to increase the efficiency, sustainability, and reliability of building spaces and convert aging buildings into smart buildings, as well as help design new smart and sustainable buildings and cities.	Cross-sectoral (Electrical)
709	Electric annealing furnace	20	30	Electric annealing furnaces operate with remarkable efficiency (85-90%), benefiting from the use of electricity to achieve precise temperature control during the annealing process. This technology promises significant enhancements in product quality, resulting in reduced rejections in downstream processes.	Cross-sectoral
710	Electric Extrusion Melting	20	30	An electric induction melting furnace has an efficiency between 60 - 75% and offers additional advantages, such as reduced oxidation due to the non-direct contact between the heat source and aluminum. Furthermore, it minimizes pollution and ensures greater purity and uniformity of the end product.	Cross-sectoral

711	Electric Melting Furnace	20	30	Electric melting furnaces are small capacity units used for melting or holding applications. They feature a circular furnace with electric elements that heat a ceramic crucible holding the metal. With higher efficiency (60-75%), they reduce oxidation losses and pollution while offering precise control over melting time and temperature.	Cross-sectoral
712	Electrical Servo Drives	20	30	The servo drive is quite efficient in smooth start and stoppage of machine having frequent load fluctuation, and helps reduce energy wastage as well as wear and tear of machine	Cross-sectoral - Electrical
713	Energy Efficient Pumps - 5 Star Rating Pumps	15	30	EE pumps have optimum impeller design, thereby leading to optimum discharge flow and pressure and energy consumption	Cross-sectoral - Electrical
714	Energy Efficient Screw Compressor	25	40	The screw compressors are the most efficient one to generate compressed air as well as less heat compared to normal air compressor	Cross-sectoral - Electrical
715	Energy Efficient Turbo Blower	30	45	Turbo blower is made of anodized aluminium impellers and air foil bearings. As a result it has low weight and high corrosion resistance bearings to provide excellent control over varying rpm	Cross-sectoral - Electrical
716	Gasifier for Electrical Application	15	25	Gasifier gasifies coal or biomass to produce gas that can be used for power generation in gas genset or gas turbine	Cross-sectoral - Electrical
717	Hanger Shot blast Machine	30	40	Shot blasting systems offer you nearly unlimited options from deflashing, descaling, sanding and rust removal to roughening, matting, smoothing, edge rounding and shot peening.	Cross-sectoral - Electrical
718	IGBT based Induction furnace	20	30	An induction furnace is a clean, energy-efficient furnace which provides well-controlled melting process, compared to conventional means of metal melting	Cross-sectoral - Electrical
719	IGBT based temperature control	10	15	Installing Insulated Gate Bipolar Transistor (IGBT) based temperature controller for furnace ensures precise controlling of temperature.	Cross-sectoral - Electrical
720	Infrared (IR) Heaters	10	20	Use of IR Heaters results in uniform heating and reduces the baking time. Infrared heaters are extremely quiet and energy-efficient heating devices that produce a very gentle heat.	Cross-sectoral - Electrical
721	Light emitting diode (LED) Lighting	35	50	Light emitting diode (LED) is a semiconductor light source that emits light when current flows through it. These are energy-efficient lights with long life, durable, and offer better light quality than other types of lighting	Cross-sectoral - Electrical
722	Light Pipe	15	20	Light Pipes are primarily used for illuminating deep interior spaces where there is poor daylighting provisions from doors /windows	Cross-Sectoral - Electrical
723	Micro Turbine	15	30	Micro-turbines are tiny gas turbines that can generate both electricity and heat, and may vary in electrical output from around 25 kW to 250 kW	Cross-sectoral - Electrical
724	Motors (IE3 or IE4 or IE5)	25	40	EE motors are constructed with improved manufacturing techniques and superior materials, longer insulation and bearing lives, lower waste heat output, and less vibration, all of which increase efficiency and reliability	Cross-sectoral - Electrical

725	Screw Compressor with Permanent Magnet (PM) motor	15	20	Screw Compressor is driven by Permanent Motors and thus there is no rotor loss or transmission loss that results from rotor winding	Cross-sectoral - Electrical
726	Static Reactive Power Generator with Harmonics Filter	4	5	In an electric power system, a load with a low power factor & Higher Harmonics draws more current and this results in higher current withdrawal and energy losses. The Static Reactive Power Generator, an IGBT based INVERTER, helps to compensate reactive power as well as selective harmonics (5th, 7th, 11th & 13th Order Only) created by the load and unbalance in the system. This helps to minimize losses.	Cross-sectoral - Electrical
727	Temperature controller for cooling tower fan	10	25	This intervention increase the efficiency of electrical energy utilization in the cooling tower by automatic control of cooling tower fans, based on a feedback from the water temperature from the cooling circuit	Cross-sectoral - Electrical
728	Tri-generation	20	25	Tri-generation technology provides thermal, cooling and electrical energy and it has higher efficiency compared to power generation and cogeneration plants	Cross-sectoral - Electrical
729	Variable Frequency Drives (VFD)	30	40	To control speed of various appliances like motors, pumps, compressor motors, ID fan, FD fan, hydraulic press, jet drying machine, Thermic Fluid Pump, Grinding Machine etc	Cross-sectoral - Electrical
730	Variable Refrigerant flow (VRF) in HVAC	15	20	Variable Refrigerant Flow (VRF) Systems are an excellent choice for buildings that require both heating and cooling to coexist simultaneously. VRF systems have the ability to regulate the flow of refrigerant to various indoor units so that one location can stay cool while the other remains warm.	Cross-sectoral - Electrical
731	Back Pressure Turbine	15	30	The back pressure turbine is used for supplying process steam to the facilities in private-use power producers. This type of steam turbine supplies not only electricity but also the process steam to the facilities.	Cross-sectoral - Thermal
732	Cogeneration	30	50	Cogeneration technology provides thermal and electrical energy both and it has higher efficiency compared to power generation plant	Cross-sectoral - Thermal
733	Condensate recovery system in boiler/jet dying machine	10	15	For applications with zero contamination, the condensate recovery system can be effectively used to conserve and reuse water in boiler	Cross-sectoral - Thermal
734	DeSuperheater for Chiller Compressors	10	15	A desuperheater recovers the heat from the super-heated refrigerant gas at the compressor outlet	Cross-sectoral - Thermal
735	Electric Dry Vacuum Pumps	40	50	Electric dry vacuum pumps do not require any fluid to generate vacuum compared to steam ejectors, thereby eliminating the contamination of process vapours and providing better solvent recovery	Cross-sectoral - Thermal
736	Energy Efficient Boilers	10	15	Energy Efficient Boilers offer effective combustion of fuel with maximum utilization of energy	Cross-sectoral - Thermal
737	Energy efficient Refrigeration Compressor	10	15	The refrigeration compressor of latest technology, having good automation and higher Coefficient of Performance (COP) must be used to save electrical energy during refrigeration cycle	Cross-sectoral - Thermal
738	Gas fired Annealing furnace	20	30	The gas-fired annealing furnace is essential to ensure high level of operational efficiency of the furnace w.r.t the electrical-fired furnace, due to high GCV of Gas w.r.t electricity	Cross-sectoral - Thermal

739	Ground & Water source Heat Pumps (GSHP)	35	40	GSHPs use water-to-water or water-to-air approaches to treat this stable thermal environment as a heat source in the heating season and a heat sink in the cooling season	Cross-sectoral - Thermal
740	Heat Pump	30	40	A heat pump is a device that can heat a building/utility by transferring thermal energy from the outside using the refrigeration cycle	Cross-sectoral - Thermal
741	Hot Air Generator from Briquette	20	30	Briquette is locally available and commercially cheap alternative fuel compared to coal/wood, prepared by using agro waste, and can be used for low temperature application	Cross-sectoral - Thermal
742	Hot Water Generator	20	25	The hot water generator is of natural draft system and doesn't have FD and ID fans. They are the efficient and cost-effective way to generate hot water instantly	Cross-sectoral - Thermal
743	Mechanical Vapor Recompression (MVR) Evaporator	20	25	The term "evaporator" refers to process equipment used to extract liquid by vaporization. Unlike the alternative thermal vapor compression, mechanical vapor compression does not require an extra steam supply. Because there is no fluid mixing, all of the available vapor may be compressed for energy recovery. It consumes 45-50% less energy than multi effect evaporators	Cross-sectoral (Thermal)
744	PUF insulation	20	30	Polyurethane Foam (PUF) is the most effective thermal insulation material and having high strength to weight ratio at low temperature, are durable for years, with high mechanical strength	Cross-sectoral - Thermal
745	Steam operated pumping traps	3	5	Steam operated pumping traps are operated on steam and is used for condensate evacuation under all operating conditions, thereby enabling high system uptime and enhanced productivity.	Cross-Sectoral - Thermal
746	Turbulators (for gas fired boilers)	2	3	In a firetube boiler (Two- and Three-Pass), hot combustion gases pass through long, small-diameter tubes, where heat is transferred to water through the tube walls. Firetube boilers are categorized by their number of "passes," or the number of times that the hot combustion gases travel across the boiler heat-exchange surfaces. Turbulators can be a cost-effective way to reduce the stack temperature and increase the fuel-to-steam efficiency of single-pass horizontal return tubular (HRT) brick-set boilers and older two- and three-pass oil- and natural-gas-fueled firetube boilers.	Cross-sectoral (Thermal)
747	Heat Exchanger	10	15	A heat exchanger is a system used to transfer heat between a source and a working fluid.	Cross-sectoral - Thermal
748	Hot water generation from cement kiln	20	25	The waste heat, which otherwise would escape in atmosphere may be recovered using appropriate heat exchanger to pre-heat water for use in utility or process	Cement - Thermal

749	Low-Grade Waste Heat Recovery System (LGWHRS)	10	15	Waste heat even below 100 C is recovered by LGWHRS and can be used in the low temperature applications. These heat exchangers are specially designed for low-grade waste heat recovery.	Cross-sectoral - Thermal
750	Thermo Compression	20	25	Utilization of waste flash steam in chiller and process usage	Cross-sectoral - Thermal
751	Air Pre Heater & Drying Bed in furnace	18	20	Use of waste flue gas to pre-heat the material and save fuel	Cross-sectoral - Thermal
752	Economiser in boiler/Thermic Fluid Heater	10	15	The use of Economizer is highly recommended to save fuel in thermal application by use of high heat content in flue gas to pre-heat water, which can then be used in utility or process application	Cross-sectoral - Thermal
753	Gas-fired Reheating Furnace with WHR System	15	45	A fully automated system ensures better control on temperature of metals in rolling mills, with efficient combustion owing to the use of gas as fuel. In addition, the WHR system will save substantial energy by preheating the metal to the extent possible before reheating	Cross-sectoral - Thermal
754	Waste Heat Recovery Boiler	10	15	WHR Boiler is a system which recovers various kinds of waste heat generated from the production process of steel, chemical, cement etc and convert such recovered heat into useful and effective thermal energy	Cross-sectoral - Thermal
755	Waste Heat Recovery System for Coke Drying Quenching (CDQ)	20	25	Smelting furnace generates flue gas at high temperature. This flue gas temperature is utilized to heat the atmospheric air that is utilized for coke drying	Cement - Thermal
756	Waste Heat Recovery for power generation	10	15	The WHR process is a fuel conservation measure where the heat from waste stream of gases is recovered to generate steam which in turn is used to drive turbine and generate power, instead of using conventional process of burning fuel	Cross-sectoral - Thermal

757	Recuperators	20	25	A recuperator is used to recover the waste heat, usually from the exhaust flue gas generated from furnace and use it to preheat the combustion air, thereby ensuring fuel saving and process efficiency	Cross-sectoral - Thermal
758	Recuperative burner for heat recovery for high medium temperature furnaces	25	30	A recuperative burner is the one where recuperator is the integral part of the burner, and the waste heat is recovered to pre-heat the combustion air, thereby ensuring substantial energy saving	Cross-sectoral - Thermal
759	Regenerative burners for high temperature furnaces	15	20	In regenerative temperature can go to 1000 degC, resulting huge energy savings and improved furnace productivity. Applicable only for gas fired furnaces	Cross-sectoral - Thermal
760	Adiabatic Pre-reformer	4-	10	Adiabatic pre-reforming is a well-established process in modern syngas production and implies both economic and operational benefits. The adiabatic prereformer converts hydrocarbon feedstocks by steam reforming reactions in the low temperature range, 350–550°C	Fertilizer
761	Aeroseal duct sealing technology	10	20	Air Ducts are normally insulated and on many occasions are placed above false ceilings or service floors where access is extremely difficult. Even after diagnosing the leakage points in the ducts, sealing of these leakage points from outside would mean breaking / removal of false ceilings & insulation, all of which are expensive, time consuming and practically impossible in a running facility. The latest duct sealing uses the aeroseal technology which seals ducts from the Inside	Building
762	Air-Dyeing Technology	86		Air dyeing technology uses air instead of water to apply colours into textile materials. This method will help to save water up to 95% and energy up to 86%. This method can be only applying on synthetic fibre materials.	Textile
763	Alternative Fuels & Raw Material (AFR) Utilization	5	10	Utilize Alternative Fuels such as PTA Sludge, Syngenta Waste, Pines leaves etc, Municipal Solid Waste for thermal energy generation	Cement
764	Auto loom	20	25	Retrofitting of power looms with rapier/auto looms will reduces the power consumption & production cost and also increases the rate of production	Textile

765	BEE 5 Star Rated AC	20	45	Replacement of Conventional Split/Window AC with 5-star AC having higher COP or EER /ISEER	Building
766	Black Liquor Gasification	15	20	Black Liquor Gasification is an emerging commercial technology that removes the biomass material from black liquor by gasifying them in a high temperature chamber. Black Liquor Gasification with gas turbine electric generation can produce enough electricity to make the pulping industry a net exporter of electric power	Pulp & Paper
767	Bleached Chemi Thermo Mechanical Pulp (BCTMP)	15	20	It is an advanced technology for the production of high-quality chemi-mechanical pulps from hardwoods and annual plants, which is very reliable and achieves highest pulp quality at minimum operating cost and lowest environmental impact.	Pulp & Paper
768	Boiler Conversion: Atmospheric Fluidised bed to Spouted bed	25	30	A spouted bed combustor is a heterogeneous system where combustion takes place in the presence of circulating particles. This results into enhanced HP steam generation to rated capacity, due to increased bed coil depth and additional heating surface, efficient coal combustion & stoppage of PA fan and reduced DM water intake as well, followed by enhanced power generation.	Pulp & Paper
769	Carbon Fiber Fan	15	15	Carbon Fiber Fan impellers provide next-level speed, strength, and corrosion resistance for those who routinely need to move air in challenging environments without compromising strength	Textile
770	Cascaded Condensate Recovery System	5	7	Installing cascaded condensate recovery system increases condensate recovery up to 90%	Pulp & Paper
771	CNC Machine (Special Purpose Machine)	30	35	CNC machine helps enhance productivity and lower Specific Energy consumption as one machine take care of all cutting, boring, drilling, milling, grinding operations, etc.	Machine Tool
772	CNC Bending Machine	32		Enhance productivity and lower Specific Energy consumption	Machine Tool

773	CNC Gear Hobbing Machine	25		Enhance productivity and lower Specific Energy consumption	Machine Tool
774	CNC Grinding Machine	23		Enhance productivity and lower Specific Energy consumption	Machine Tool
775	CNC Horizontal M/c Centre	30		Enhance productivity and lower Specific Energy consumption	Machine Tool
776	CNC Lathe Machine	30		Enhance productivity and lower Specific Energy consumption	Machine Tool
777	CNC Milling M/C	30		Enhance productivity and lower Specific Energy consumption	Machine Tool
778	CNC Turn –Mill Centre	25		Enhance productivity and lower Specific Energy consumption	Machine Tool
779	CNC Turret Punch Machine	41		Enhance productivity and lower Specific Energy consumption	Machine Tool
780	CNC Wire Cut Machine	35		Enhance productivity and lower Specific Energy consumption	Machine Tool

781	Compressed Bio-Gas (CBG)	25	30	Compressed Bio Gas or CBG is a purified biogas (methane content more than 90%) with zero trace of carbon dioxide and hydrogen sulphide gases and compressed to maximum 250 bar and filled up in cascades (group of high pressure cylindrical vessels).	Oil & Gas Sector
782	Copper inserted collector installation in Potline	50	60	A high performance Cathode assembly for pots, using copper insert collector bar design and modified refractory lining, which will enable reduction in Specific Power consumption (SPC) and having provision for current creep in future thereby increase in throughput.	Aluminium smelting
783	Direct Rolling in mini steel plants	10	15	The Direct Rolling Technology refers to converting the billet in to a rolled product without any intermediate reheating arrangement, thereby avoiding wastage of sensible heat of steel. Here, the hot billets produced from continuous casting machine is not taken into the storing yard where they will cool down to ambient temperature thereby loosing energy, but are diverted in hot condition directly to the rolling section.	Iron & Steel
784	Divided blast cupola	20	25	For replacement of conventional cold blast cupola for better melting of metals, generated less pollution and saves coal as well	Foundry
785	Drum pulpers	20	30	Drum Pulper integrates efficient pulping of stock upto 15-18% consistencies and separates gently and effectively fibers and contaminants, resulting in energy saving during these operations when performed separately in the mill. The drum pulper is suitable for writing & printing, newsprint and kraft paper production from recycled fiber.	Pulp & Paper
786	Electrical Annealing Bogie Furnaces	25	30	The energy cost in electrical annealing furnaces is low comparatively with wood fired furnaces due to more efficiency of electrical heating, less manpower cost and low energy cost. Further, this also ensures maintain uniform temperature throughout the furnace	Brass & Aluminium
787	Energy Efficient Brushless Direct Current (BLDC) Fan	35	50	BLDC fans consumes lower energy compared to conventional fans, having high reliability and life expectations as well	Building
788	Energy efficient gas fired pot furnace	30	35	It has several pots or crucibles in which different small batches of glass can be melted	Glass

789	Energy efficient impeller	1		Energy efficient Impeller 84% efficiency. The can improve the performance of Fans installed in industries	Cement
790	Energy Efficient Modulating Burner	10	15	These burners are provided with variable air/fuel ratio leading to better heat generation and drying of leaves, thereby producing good quality tea	Tea Processing
791	Energy Efficient Tank furnace	15	20	Tank Furnaces are primarily used in glass industry where continuous flow of glass is needed to feed automatic glass forming machines.	Glass
792	Energy Efficient technology for ECBC/Eco-niwas Samhita	15	25	The efficient building envelope helps prevent heat loss /gain between inside space of building and outside atmosphere, thereby ensuring more comfort, maintain appropriate building temperate and also reduce heating /cooling load, thereby saving electrical energy to a great extent.	Building
793	Energy Efficient Tray Dryer	15	20	The Tray drying is a batch process used to dry materials that are liquid or wet cake, and works well for material that requires more gentle processing or cannot be atomized in an air stream due to viscosity.	Chemical
794	Exhaust humidity measurement & control system	5-	15	To control outlet moisture of Fabric on stenter and control blower motor speed and power consumption as well	Textile
795	Fabricated Water Ring Vacuum Pumps	30	40	Fabricated water ring vacuum pumps have precise design, reduced dead weight and reduced wear and tear compared to conventional cast iron water ring vacuum pumps	Pulp & Paper
796	Falling Film Chillers	20	22	Falling Film Chillers are suitable for continuous chilling of liquids close to their freezing point. They are installed before Ice Bank Tank (IBT) to pre-chill the incoming process return water at higher temperature	Dairy

797	Fiberglass Reinforced Plastic (FRP) Fan in Withering Units	10	15	The Fiberglass Reinforced Plastic (FRP) is light in weight compared to metallic blade and can resist any weather situation and withstand corrosion, waterborne bacteria, and organisms.	Tea Processing
798	Flare gas recovery system (FRGS)	80		A flare system is required for safety & operational reasons. As such every petroleum crude oil refinery is provided with a flaring system to continuously burn the vent gases before they are safely discharged to atmosphere. A small quantity of hydrocarbon gas is kept as purge gas in the flare system which gets burnt continuously in the flare. Also on occasions during abnormal conditions in the operation, ventgases are sent to flare. Recovery of flare gases hence is direct fuel recovery.	Petroleum Refinery
799	Fluidised Bed dryer system	10	15	The Fluidised dryer system will ensure better quality tea by ensuring effective drying of tea leaves	Tea Processing
800	Forging Furnace	15	20	The energy efficient forging furnace provides effective heat for the heating and reheating of large steel ingots, blooms and cast parts, with better temperature control and reduced skin losses from outer surface of chamber	Forging
801	Gas Engine based cogeneration technology	30	40	A Cogeneration is a system having gas engine produces heat and electricity simultaneously in a single plant, powered by gaseous fuel having better combustion and less ash generation, thereby guaranteeing a better energy yield	Ceramics
802	Gas fired hot air generator system	20	25	For replacement of conventional wood fired hot air generator system with better combustion control and less emission	Chemical
803	Gas fired stenters	30	40	The thermic fluid heaters are used to provide the heating	Textile

804	Gasifier For Kilns	30	35	The Gasifier is a cheaper energy source having better yield compared to conventional fuel for combustion in kilns	Limestone
805	Gasifier for Melting And Reheating Process	20	25	Rice husk works as renewable source of energy. Hence use of rice husk reduced cost of production and waste utilization as well	Brass & Aluminium
806	Hi-Consistency Pulper	10	15	Hi-consistency pulper requires lesser amount of water compared to low consistency pulper.	Pulp & Paper
807	High Efficiency Refiner	7	20	Refiners are used for mechanical pulping (TMP refiners) and the postrefining of GWP (Ground wood Pulp) mills. Energy efficient refiners can reduce no-load power caused by motor, pumping, and friction losses.	Pulp & Paper
808	High Pressure Moulding Line in Moulding Area	50	60	High pressure moulding line has advantages such as continuous mould preparation, fast pattern changing time, fully automatic machine and it does not require mould transportation, storage and maintenance which can reduce manpower	Foundry
809	High pressure roller press for pre-grinding for a ball mill	10	15	In high-pressure roller press comminution, the feed material is exposed to very high pressure for a short time. The high pressure causes the formation of microcracks in the feed particles and generates a substantial amount of fine material. If the pressed material is fed directly to a ball mill, the power consumption required to produce finished cement will be much lower than that of a mill fed with unpressed material. This makes it possible to increase the throughput of a given size ball mill and to reduce the specific power consumption of the whole mill system.	Cement
810	High Speed Blunger	35	40	Blunger is a machine which can rapidly blunge raw material without changing non plastic raw material structure using stator rotor mechanism	Sanitaryware & Potteryware

811	High-speed carding machine	30	40	The high speed carding machine is large and each machine consumes considerable amounts of electricity. On the other hand, since productivity is high, 1/3 the number of new machines and half the total power can produce the same production capacity as ordinary carding machines	Textile
812	High-speed Ring spinning frame	10	20	This machine has an increased operating speed by 10 – 20% with similar power consumption as compared to conventional equipment. It results in higher production for same amount of energy consumption	Textile
813	Hydraulic Hammer	30	40	Hydraulic hammers are 30-40% energy efficient than pneumatic hammers. Operation of the hydraulic hammers are very smooth and noise free as compared with pneumatic hammers.	Forging
814	Hydrogen fired Vapour absorption machine	10	15	In Chlor-alkali plants, certain percentage of hydrogen released during electrolysis remains unutilized and vented into the atmosphere. The vented hydrogen can be efficiently used in Hydrogen fired VAM to generate chilled water	Chlor-alkali
815	Ice Bank Tank (IBT)	25	30	This process of direct cooling ensures no cooling loss or addition of external heat and ensures low energy consumption at compressor due to higher suction pressure	Dairy
816	IGBT based welding machine	10	15	Welding is a critical operation in the Indian Railways in locomotive manufacturing units, coach manufacturing facilities and workshops. During welding operation, an electric arc is formed between the consumable wire electrode and the work piece where the heat generated causing the work piece to melt and join together. In thyristor based welding machine, significant part of the power consumption goes into heating the transformer and the surrounding air, resulting in significant losses. This is avoided to a significant level in case of inverter based machines.	Railway/others
817	Induction Billet Heater	20	25	For replacement of Oil Fired Furnaces with having better control on temperature and energy saving as well	Forging

818	Installation of Pulverized Coal Injection in Blast Furnace	30	40	Pulverized coal injection (PCI) is a process which involves injecting large volumes of fine coal particles into the raceway of the blast furnace (BF). Pulverized coal is an important auxiliary fuel used in the BF ironmaking.	Iron & Steel
819	Installation of Top Recovery Turbine in Blast Furnace	10	15	TRT is basically an energy saving measure at the BF which utilizes the waste pressure energy of the BF top gas to generate electric power.	Iron & Steel
820	Latest Generation High Efficiency Clinker Cooler	15	20	It offers significant potential for electrical and thermal energy saving; The total heat loss of latest generation clinker is less than 100 Kcal /Kg Clinker compared to conventional cooler where heat loss is more than 120-150 kCal /Kg Clinker	Cement
821	Light weight bobbins	7	20	In ring frames, yarn is collected on bobbins. The heavier the bobbins are, the more energy is required for the rotation of bobbins and hence spindles. The light weight spindles are 7-20% lighter results in similar amount of energy saving	Textile
822	Light weight carbon reinforced spinning pot	18	20	Conventionally, steel reinforced spinning pots are used in synthetic fiber production plants. Steel reinforced spinning pots can be replaced with carbon reinforced spinning pots (in man-made fiber production). They are lighter by approx 20% which results in energy savings	Textile
823	Liquid Ring Compressor	10	15	This Liquid Ring Compressor will function as flare gas recovery system (FGRS) to recover the flare gas and sending it to Delayed Cooker Unit (DCU) wet gas compressor suction, which will further be directed to Fuel gas header to use it as fuel gas in refinery fired heaters. This has also avoided the requirement of dedicated FGRS.	Refineries
824	Lost foam casting technology	15	20	Lost Foam Casting is a type of evaporative pattern casting foundry technology, also called LFC, where expanded polystyrene (EPS)/ STMMMA-FD is used as pattern. This technology takes advantage of the low boiling point of polymer foams to simplify the investment casting process by removing the need to melt the wax out of the mold.	Foundry
825	Louisiana State University (LSU) Port Dryer	25	40	This technology ensured uniformly dried product and can be used for different types of grains as well	Food Processing

826	Low Consistency Refining (LCR)	20	30	The refining of pulp prior to papermaking process is one of the most energy intensive and involves the alteration of cell structure of pulp fibers by imparting mechanical action. Low consistency refining can optimize the current refining process to enhance the productivity and save significant amount of energy and chemicals.	Pulp & Paper
827	Low Thermal Mass cars in Tunnel Kiln	10	13	The reduction in weight of kiln cars in Tunnel kilns provides significant amount of energy saving and improved material to car weight ratio	Glass & Ceramic
828	Magnetic compensation loop (MCL)	10	15	1. Magnetohydrodynamic (MHD) instability or waves at the metalbath interface in the aluminium reduction cell is the major hurdle for increasing energy efficiency and productivity. 2. To stabilize the interface at a smaller anode-cathode distance and higher anode current density, a magnetic compensation loop has been designed without altering the existing busbar system. 3. The effect of magnetic field compensation loops inside, outside, and on both sides of the potline circuit has been evaluated.	Aluminium Smelting
829	Medium frequency Induction Furnace	10	15	The medium frequency induction heating furnace adopts the basic principle of induction heating. It is a high-tech product replacing the traditional oxygen, oven and salt slag furnace. It can save energy, save time, fast and improve the quality of the product	Iron & Steel
830	Membrane Filter Press	30	40	For replacement of conventional Filter Press with better drying of sludge	Chemical
831	Modern Brownstock Washers (BSWs)	10	20	Efficient removal of fiber and dissolved matters from the unbleached pulp in modern BSWs primarily results in higher solids black liquor, which reduces the evaporation energy significantly. Additionally, better washing leads to less soda loss with pulp, affecting the bleach chemical consumption significantly.	Pulp & Paper
832	Modern multichannel burners	5	10	Some cement kiln systems are equipped with direct-fired solid fuel systems that use a mono-channel burner pipe to the kiln. It not only decreases the specific fuel consumption but also nitrogen oxide emissions may be reduced due to the decreased oxygen availability in the core flame. Furthermore, these modern burners allow the use of significant amounts of secondary fuels.	Cement

833	Natural Gas fired Boiler	20	30	Replacement of conventional Coal /Wood fired boiler with NG fired Boiler	Foundry
834	Nutsche Filtration and Drying Process	10	20	ANFD is used for active pharmaceutical ingredient (API) filtration. It is a combination of slurry filtration, product washing, and vacuum drying processes into a single unit.	Pharmaceutical
835	Oxyfuel Burner	30	40	To increase the oxygen content, the induction furnaces are used with oxyfuel burners along with standard burners which also reduces the content of nitrogen from the air. This improves the efficiency of combustion process	Pulp & Paper
836	Palletisation plant - Sponge Iron	10	15	The palletisation ensures agglomeration of fine iron ores which is easy to handle in blast furnace or EAF	Sponge Iron
837	Particle size Distribution (PSD) analyser	10	15	Traditionally, quality control in the cement manufacturing plant has been practised by collecting samples from different processing points at regular intervals and analyzing them in a central laboratory, either manually, or in some cases automatically. As an alternate, PSD analysis gives a complete grain size distribution of the finished cement. PSD analyser gives a real time continuous measurement, it is possible to dynamically control the speed of the separators at the finish grinding mill and therefore optimize the fineness, maintain quality requirements and saving on the cost of energy required for grinding.	Cement
838	Plasma melting furnace	30	40	A plasma melting furnace is used to liquefy a substance using a lowtemperature plasma stream, usually produced by an electric arc heater known as a plasmatron.	Iron & Steel
839	PLC based dyeing machine	20	25	Conventional jiggers do not have a variable liquor ratio, which is why the quantities of water, pigments and chemicals cannot be adjusted properly to the varying quantities of fabric being processed. These jiggers make use of a heat exchanger, allowing the heat to be removed and applied elsewhere in the plant. Because of additional features such as a vacuum system and sprinklers, the number of passages in washing cycles can be reduced significantly. It can give	Textile

840	Pocket Ventilation System	5	15	Pocket Ventilators improve the drying rate, moisture profile and production for paper machines. The ventilators prevent sweating, corrosion and fibre build up.	Pulp & Paper
841	Pulser dyeing technique	20	30	Pulser dyeing is a major breakthrough in the yarn dyeing process, where in liquor requirement per kg of yarn is reduced to 4:1 as against conventional 10:1 requirement, and pumping requirement to maintain flow an pressure of water is reduced to 1/3rd, thereby substantially reducing energy, water, chemical requirement	Textile
842	Radiant Cooling	30	50	Radiant cooling is a hydronic system that circulates chilled water through PEX pipes embedded in the floor or ceiling, or through copper pipes embedded in ceiling panels. Water passing through these pipes first cools the floor/ceiling surface, which then cools the enclosed space through radiation.	Building
843	Radio frequency heating	20	30	Radio Frequency (RF) heating and drying systems utilize electromagnetic energy to rapidly heat and dry many types of bulk materials, as well as finished products with excellent speed and efficiency.	Food Processing
844	Rapier or Auto Loom	15	20	For replacement of conventional Power Loom thereby ensuring enhanced productivity and production, reduced energy and manpower cost	Textile
845	Recovery of BOF gas and sensible heat in Basic Oxygen Furnace	3	5	The gas produced in the BOF has a temperature of approximately 1200°C and a flow rate of approximately 50-100 Nm ³ /t-steel. The gas contains approximately 70-80% CO when leaving the BOF and has a heating value of approximately 8.8 MJ/Nm ³ (NEDO, 2008) or 0.84GJ/t-steel	Iron & Steel
846	Rotoberatory Furnace	20	25	Implementation of proposed energy efficient rotoberatory furnace equipped with waste heat recovery system and automatic control system having efficiency more than existing furnace would save energy.	Brass
847	Screw Washer	10	15	For replacement of twin drum washing system with high efficient screw washer to save energy	Paper

848	SITRA Excel fans	15	20	South India Textile Research Association (SITRA) developed "SITRA Excel Fans" specially for ring spinning. The fan offer significant reduction in weight, is is dynamically balanced using digital balancing machine and has superior finish with special powder coating technique to provide saving of 20 per cent pneumafil power in ring spinning and 30 per cent in carding	Textile
849	Shoe Press	20	30	Shoe press technology is a papermaking procedure that uses a large concave shoe instead of one of the conventional rotating cylinders; this extends dwell time, thus improving mechanical de-watering compared to that of conventional roll presses	Pulp & Paper
850	Synthetic sandwich tapes	5	15	Used in Ring Frame machine, synthetic sandwich tapes offers good dimensional stability, reduced breakage, and results in less weak-twist yarn, and reduced fiber sticking, thus saving energy substantially	Textile
851	Thermal Energy Storage for Bulk Milk Coolers (BMC)	15	20	This system uses vapour compression cycle to form ice which is later used to provide cooling without the need of grid availability during cooling process, thereby eliminating the exposure of milk to higher temperature for a longer duration during their collections and also preserve freshness and aroma	Dairy
852	Thyristor based Rectifiers	4	6	The DC power required for electrolysis process is supplied by rectifiers in chlor-alkali plants. The rectifier consists of step down transformer and rectifier unit. The thyristor rectifiers are controlled electronically and are having higher reliability and efficiency.	Chlor-alkali
853	Tube ice plant	10	15	Tube ice machine performs continuous Freezing and Harvesting function, thereby ensuring steady supply of high quality ice at a rate determined by the user	Ice Making
854	Ultra-High Power Electric Arc Furnace	10	15	Ultra High Power (UHPs) have become one of main tools for the steel making process since they have high productivity, low cost and high quality of products	Iron & Steel
855	Ultrasonic technology	20	30	Ultra-violet (UV) heating employs ultraviolet radiation to generate heat directly in materials, offering efficient and targeted heating for various applications such as curing, drying, and sterilization.	Textile

856	Vacuum blower	20	25	Vacuum pumps are used to maintain vacuum at various sections of Paper Machine to remove water by the flow of air. Vacuum pumps consume significant amount of power for their operation in a paper machine. Latest trend is to replace vacuum pumps with vacuum blowers. The efficiency of vacuum pumps is around 40% whereas that of vacuum blowers is around 60%. The replacement with vacuum blowers will reduce the energy consumption by about 40%.	Pulp & Paper
857	VAM Chillers	30	40	The working principle of VAMs is based on absorption where a concentrated salt and water solution is used to absorb water vapour and then pressurized by a low- pressure pump to generate chilled water	Building
858	Veneering for Industrial furnaces	20	25	Reduction in surfaces heat losses from furnaces and also store the residual heat during non-firing time	Foundry
859	Vertical Agitator System for Reaction Vessel	20	25	The vertical agitation system is more versatile compared to horizontal agitation system, allowing mixing various feed material in one go, is easy to maintain and operate	Chemical
860	Vertical shaft brick kilns	15	20	It is a continuous, updraft, moving ware kiln in which the fire remains stationary while there is counter current heat exchange between air (moving upward) and bricks (moving downward)	Bricks
861	Vortex rectifier in mill	10	15	The installation of vortex rectifier for the classifier has resulted in restoring a linear flow in the ductwork & maintaining homogeneous velocity distribution thus resulting in a lower pressure drop and reduced specific energy consumption	Cement
862	Waste heat recovery in centrifugal compressor	10	20	The waste heat is recovered from each stage of compressor owing to losses in the form of radiation loss and/or condensation heat and using them in pre-heating of boiler feedwater or process application	Textile
863	Waterless Dyeing Technology	60	65	Waterless Dyeing Technology uses supercritical CO ₂ gas rather than water to infuse fabric with color. Special temperature- controlled pressure chambers force the carbon dioxide to act as a fluid similar to water (the supercritical fluid CO ₂) which causes the polymer fiber to swell allowing the dispersed dye to easily diffuse within the polymer, penetrating the fibers, and carrying the dyes into the fabric and dyeing it.	Textile (Polyester Dyeing)

864	Zero gap CO ₂ electrolyzer	10	15	Anode and Membrane replacement along with Zero gap conversion of Electrolyser helps in reducing ohmic losses in the electrolyte. Zerogap electrolyzers are similar to fuel cells in design because the heart of the electrolyzer consists of two electrodes pressed against a membrane. These electrolyzers are called "zero-gap" because there is no gap between the cathodes, anodes, and the electrolyte.	Chlor-alkali
865	Zig-Zag Firing	20	25	The zig-zag type firing ensure better turbulence and contact time between flame and bricks, thereby better productivity and reduced SEC	Bricks
866	Aluminium pipe for distribution of compressed air system	10	20	Aluminium pipe doesn't rust, unlike mild steel pipes, due to moisture present in compressed air and this avoid leakages and saves 10-20% of losses	Cement, Iron &
867	Fuel efficient industrial furnace burners specially for rotary kiln	5	7	Improved overall combustion efficiency of burners in rotary kilns in Alumina, chemical, lime, sponge iron plants using gas and liquid fuel	Cement, Iron & Steel
868	Plasma Technology in steel melting shop	15		The use of Plasma Technology ensures superhot electrically heated gases that are extremely efficient in melting metals	Iron & Steel
869	XPLATE on FD Fan to improve boiler combustion efficiency	3	5	XPLATE technology breaks the clusters of gaseous fluid flows inside the boiler and releases trapped molecules of Oxygen (O ₂) & Nitrogen (N ₂) in the clusters. This provides more reacting oxygen inside the boiler that enables more complete combustion	Multiple sectors
870	Oxygen Depolarized Cathodes (ODCs)	25	35	Replacement of the hydrogen evolving cathodes in the classical membrane cells by ODCs allows for reduction of the cell voltage and correspondingly the energy consumption of up to 25-35%	Chlor-Alkali Industry
871	Hisarna Ironmaking Technology	15		Hisarna is a new type of furnace in which iron ore is directly injected and liquefied in a high temperature cyclone so that it drips to the bottom of the reactor where powder coal is injected. The two react into liquid iron.	Iron & Steel

872	Extended Delignification System for Cooking of Wood	50	60	The extended delignification system recycles majority of the heat generated in the pulping process and stores the recycled heat in the form of black liquor and white liquor	Pulp & Paper
873	Vertical Roller Mill (VRM)	6-10 KWH per MT raw material		Vertical roller mill is a type of grinder used to grind materials into extremely fine powder for use in mineral dressing processes, paints, pyrotechnics, cements and ceramics. It is an energy efficient alternative for a ball mill. Typical Sector: Cement, Ceramics, limestone, etc.	Cross-sectoral - Electrical
874	Turbulators (for gas fired boilers)	Improves boiler efficiency by 2-3%		In a firetube boiler (Two- and Three-Pass), hot combustion gases pass through long, small-diameter tubes, where heat is transferred to water through the tube walls. Firetube boilers are categorized by their number of "passes," or the number of times that the hot combustion gases travel across the boiler heat-exchange surfaces. Turbulators can be a cost-effective way to reduce the stack temperature and increase the fuel-to-steam efficiency of single-pass horizontal return tubular (HRT) brick-set boilers and older two- and three-pass oil- and natural-gas-fueled firetube boilers.	Cross-sectoral (Thermal)
875	Alternative Fuels & Raw Material (AFR) Utilization	Thermal Substitution rate of 5-10%		Utilize Alternative Fuels such as PTA Sludge, Syngenta Waste, Pines leaves etc, Municipal Solid Waste for thermal energy generation	Cement
876	Cement Calcining Process - Suspension Preheater	14.3 kg of standard coal per ton of clinker		The Suspension Preheater process improves calcining efficiency by drying and preheating the feedstock using the kiln exhaust gas (waste heat).	Cement
877	Energy efficient cyclone	1.03 KWH & 7000 KCal/MT of Clinker		Energy efficient cyclone has 97.5% efficiency and it can be installed at the last stage in Pre-heater	Cement
878	Energy efficient impeller	1.08 KWH/MT Clinker		Energy efficient Impeller 84% efficiency. The can improve the performance of Fans installed in industries	Cement

879	Flare gas recovery system (FRGS)	Upto 80% recovery of flare gas		A flare system is required for safety & operational reasons. As such every petroleum crude oil refinery is provided with a flaring system to continuously burn the vent gases before they are safely discharged to atmosphere. A small quantity of hydrocarbon gas is kept as purge gas in the flare system which gets burnt continuously in the flare. Also on occasions during abnormal conditions in the operation, ventgases are sent to flare. Recovery of flare gases hence is direct fuel recovery.	Petroleum Refinery
880	Hot Charging of Billets	100% - Complete elimination of reheating		Hot charging of billets can serve as an energy efficient alternative for this process in which the steel is melted at slightly higher temperature of 1650°C and then the molten steel is fed into CCM where the temperature of the billet (1150°C) at the output is controlled by PLC, which is directly sent to the rolling bay, thereby eliminating the need of re-heating.	Iron & Steel
881	Methane Capture technology	2025 TOE per annum		It is generated by anaerobic treatment of effluent discharged instead of using aerobic treatment. FO or equivalent fuel will be saved due to usage of captured methane. Also due to downgrading of aerobic treatment electricity will be saved.	Dairy
882	Photocells for Speed Frames	0.05 kWh/kg		In conventional machines, whenever any breakage of roving occurs at the suction, it keeps drawing the rove till the break is detected. This leads to roving losses in addition to the energy consumption for the Pneumafil blower. On installation, photocell detects breakage immediately and the machine is stopped, which eliminates the requirement of the Pneumafil blower and also roving losses	Textile
883	Replacement of steam turbine drive with high speed motor drive	15000 Ton of NG per year		Replacement of steam turbine drive with high speed motor drive will result in saving of steam and extra power generation	Refineries
884	Electric Vehicles and Charging Infrastructure	1 Liter Diesel per 15 km		Electric vehicles are power by battery and electric motor	Transportation
885	Nano composite surface treatment for condenser in power plant	13000 tons of coal/Yr		It protects from fouling, scaling, and deposition resulting improvements in power generation efficiency	Power Plant
886	Torrefaction Technology	Not applicable		Torrefaction is thermochemical conversion method to produce coal fuel (bio char) from biomass. It is carbon rich material can be easily burnt in industrial furnaces, boilers driers, etc.	Power Plant

887	Amine-based PostCombustion Capture (PCC) Technology	90% CO2 Capture Percentage		Amine-based carbon capture is a regenerative process using an amine solvent to remove CO2 from flue gas. Reversing the reaction releases pure CO2 for capture and frees up the solvent for re-use. This technology is primarily used for Carbon Capture & Storage	Refineries
888	Gasification Based Production	90% CO2 Capture Percentage		CCUS unit will undertake purification and compression of high conc. CO2 stream for further disposition. Source of CO2 stream is Outlet of the acid gas removal unit	Refineries
889	NG Based Steam Methane Reforming (SMR) for H2 production	60% CO2 Capture Percentage		Cryogenic separation has been considered for CO2 capture from tail gas as it ensures high purity CO2 (99.9%) with additional H2 recovery. Source of CO2 stream is tail gas	Refineries
890	Pressure Swing Adsorption (PSA) Technology	90% CO2 Capture Percentage		Pressure Swing Adsorption (PSA) Technology has been applied to separate gas mixtures, such as carbon dioxide capture in ammonia production and in hydrogen purification. PSA is highly costeffectiveness, simple to operate, high performance at ambient temperatures, high regeneration rate, and low energy intensity.	Cement
891	Water Gas Shift Reactor	50% CO2 Capture Percentage		Water gas shift has been considered to ensure maximum CO2 capture from a single point and potential H2 recovery from the BF gas. Source of CO2 stream is BF gas	Iron & Steel