

## Minimum Equipment and Tools Requirements

Minimum Equipment and Tools requirements for mass production shall be inspected during post-qualification. Compliance is one of the requirements in awarding the Mass Production contract.

A. For the production of Science and Math Equipment

No.	Particulars	Capacity	Quantity
1A	CNC Lathe Machine	Max Swing Over Bed: 500mm; Max Length of Workpiece: 1,500mm	1 unit
2A	CNC Universal Milling Machine	X-Axis Travel: 700mm Y- Axis Travel: 300mm Z-Axis Travel: 300mm	1 unit
3A	Metal Stamping Machine	60 Tons	2 units
4A	Die Casting Machine		1 unit
5A	Resistance (Spot) Welding Machine	Welds up to 3mm thick	1 unit
6A	Drilling Machine: Bench or Pillar Type Portable Electric Drill		2 units 3 units
7A	Angle or Straight Portable Grinder		3 units
8A	Power Hacksaw	175mm maximum cut	1 unit
9A	Welding Machine (SMAW)	200 Amperes	2 units
10A	Power Press	50 Tons	1 unit
11A	Assorted Hand Tools		1 lot
	Measuring Instruments		
12A	Outside Micrometer	0-25mm 25-50mm	2 units 2 units
13A	Vernier Caliper	150mm	4 pcs
14A	Thread Gage Metric		2 units
15A	Precision Square	200mm x 130mm	2 units
16A	Torque Wrench	0 - 75 in-lb	1unit
17A	Force Gauge	0 - 10 Newton	1 unit

B. For the Manufacturing of Steel Cabinet

No.	Particulars	Capacity	Quantity
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1B	Metal Stamping Machine	60 tons	2 units
2B	Metal Sheet Bending Machine (Folding Machine)	Bending Capacity: 3mm thick x 2,250mm long	1 unit
3B	Plate Shearing Machine	Shearing Length: 2,500mm	1 unit
4B	Drilling Machines: Bench or Pillar Type Portable		2 units 3 units
3B	Resistance Welding Machine	Welds up to 3mm thick	3 units
4B	Portable Angle or Straight Grinder		3 units
5B	Submerge Arc Welding Machine	200 Amperes	2 units
6B	Gas Welding (Oxygen and Acetylene) Machine with Accessories		2 units
7B	Tungsten Inert Gas (TIG) Welding Machine		1 unit
8B	Powder Coating Complete Facilities (Painting) includes preparation, cleaning to finishing facilities		1 lot
9B	Assorted Hand Tools such as Hammers, Screw Driver Set, etc		1 lot
	Measuring Instruments:		
10B	Steel Tape Roll	6 meters	3 pcs
11B	Tri-square		2 pcs

#### C. For the Manufacturing of Plastic Parts

No.	Particulars	Capacity	Quantity
1C	Plastic Injection Machine (Big)	500 tons	1 unit
2C	Plastic Injection Machine (Small)	100 tons	1 unit
	Measuring Instruments:		
3C	Vernier Caliper	150 mm	2 units
4C	Steel Tape Roll	3 meters	

#### D. For the Manufacturing of Power Supply and Set of Coil

No.	Particulars	Capacity	Quantity
1E	Rewinding Machine with Counter		10 units.
2E	Bench Vise		5 pcs
3E	Soldering Iron / Gun		10 units
4E	Universal Milling Machine		1 unit
5E	Plastic Injection Machine	100 tons	1 unit
6E	Portable Electric Grinder		3 units
7E	Bench Grinder		1 unit
8E	Metal Stamping Machine	60 tons	1 unit
9E	Metal Sheet Bending Machine (Folding Machine)	Bending Capacity: 3mm thick x 1,500mm long	1 unit
10E	Plate Shearing Machine	Shearing Length: 1,500	1 unit

		mm	
	Hand Tools		
11E	Diagonal Cutter Pliers		5 pcs
12E	Long Nose Pliers		10 pcs
13E	Flat Screw Driver		10 sets
14E	Philip Screw Driver		10 sets
15E	Ball pen Hammer		10 pcs
16E	Side Cutter Pliers		10 pcs
17E	Round File		5 pcs
18E	Flat File		5 pcs.
19E	Knife		5 pcs
20E	Extension Cord with 5 gangs Universal Outlet		4 sets
	Measuring /Testing Instruments		
20E	Vernier Caliper	150 mm	5 pcs
21E	Steel tape Roll	3 meters	2 pcs
22E	Tri-Square		5 pcs
23E	Analog Multi-Tester		5 pcs
24E	Halogen Bulb with Socket and wire and banana plug	50 watts, 12 volts	20 pcs
25E	Dial-Type Thermometer		10 pcs.
26E	Digital C-clamp Meter		2 units