

Name of the Trade		Welder		
S.N o.	Name of the item	Std List No	Type of the item (Tool / Equipment / Machinery)	Specifications
(i)	(ii)	(iii)	(iv)	(v)
1	Welding helmet fiber	1	Tool kit	Very sturdy and light weight. With adjustable ratchet head gear.
2	Welding hand shield fiber	2	Tool kit	Very sturdy and light weight. . Standard vision 110 mm X 85mm
3	Chipping hammer with metal handle 250 Grams	3	Tool kit	Chipping hammer with spring handle 250 Grams
4	Chisel cold flat 19 mm x 150 mm	4	Tool kit	chisel cold flat with face size 19mm, 150 length made of Hardened & Tempered High Carbon Steel
5	Centre punch 9 mm x 127 mm	5	Tool kit	centre punch with face 9mm, 127mm length and working point Hardened & Tempered High Carbon Steel
6	Dividers 200 mm	6	Tool kit	divider with 200 mm length, working point Hardened & Tempered High Carbon Steel
7	Stainless steel rule 300mm	7	Tool kit	Standard Steel Rule of 300 mm Length ,both side marking in inches ,cm & mm
8	Scriber 150 mm double point	8	Tool kit	Scriber of 150mm length, both sides Hardened & Tempered High Carbon Steel pointed
9	Flat Tongs 350mm long	9	Tool kit	tongs flat in size of 350mm long
10	Hack saw frame fixed 300 mm	10	Tool kit	Standard Hacksaw Fixed frame made of Steel suitable for 300 mm blade fitment.
11	File half round bastard 300 mm	11	Tool kit	A Standard half round File 300 mm long Bastard Type made of High Carbon Steel with handle
12	File flat 350 mm bastard	12	Tool kit	A Standard Flat File 350 mmlong Bastard Type made of High Carbon Steel with handle
13	Hammer ball pane 1 kg with handle	13	Tool kit	hammer ball pein 1 kg with wooden handle
14	Tip Cleaner	14	Tool kit	standard cleaning wires sizes (No 1-5)
15	Try square 6"	15	Tool kit	Having length of 6 inches blade & having markings in inches, cm & mm made of Hardened Steel
16	Spindle key	16	Equipments	standard size spindle key for opening the cylinder
17	Screw Driver 300mm blade and 250 mm blade	17	Equipments	Screw driver of 300mm blade and 250 mm blade and having plastic handle
18	Number punch 6 mm	18	Equipments	Hardened steel suitable to punch soft metals and mild steel. Number punch set of 0 to 9, of face 6mm & length 100 mm
19	Letter punch 6 mm	19	Equipments	Hardened steel suitable to punch soft metals and mild steel. Letter punch set of A to Z (Capital) of face 6mm & length 100 mm
20	Magnifying glass 100 mm . dia	20	Equipments	magnifying glass with dia 100mm with steel frame and handle
21	Universal Weld measuring gauge	21	Equipments	For measurement of weld bead in flat & fillet joints , Available in Standard or Metric
22	Earth clamp 600A	22	Equipments	Copper /Brass 600 amp as per BS 638
23	Spanner D.E. 6 mm to 32mm	23	Equipments	Spanner set made of Drop forged carbon steel, Polished /Chrome Plated of sizes Size :6-32mm
24	C-Clamps 10 cm and 15 cm	24	Equipments	Double-rolled thread for faster clamping and increased durability & Larger handle for greater clamping pressure with less effort and reduced hand fatigue & of size 10 cm & 15 cm
25	Hammer sledge double faced 4 kg	25	Equipments	DOUBLE FACE, 4 kg. WITH WOODEN HANDLE
26	S.S tape 5 meters flexible in case	26	Equipments	5 meters flexible Material with Measuring Scale Metric, Inch & Foot
27	Electrode holder 600 amps	27	Equipments	electrode holder suitable for carrying 600 amps current with copper alloy jaws and fully insulated
28	H.P. Welding torch with 5 nozzles	28	Equipments	copper alloy made with five nozzles(1,2,3,5,7 Nos.)
29	Oxygen Gas Pressure regulator double stage	29	Equipments	Heavy duty double stage Regulator suitable for 200/230bar inlet pressure and imported safety pressure gauges design for 300 bar service pressure.
30	Acetylene Gas Pressure regulator double stage	30	Equipments	Heavy duty double stage Regulator suitable for 20 bar inlet pressure and imported safety pressure gauges design for 300 bar service pressure
31	CO2 Gas pressure regulator, with flow meter	31	Equipments	Heavy duty double stage Regulator suitable for 230 bar inlet pressure and imported safety pressure gauges design for 300 bar service pressure.
32	Argon Gas pressure regulator with flow meter	32	Equipments	Heavy duty double stage Regulator suitable for 230 bar inlet pressure and imported safety pressure gauges design for 300 bar service pressure.
33	Metal rack 182 cm x 152 cm x 45 cm	33	Equipments	Metal rack of size 182 cm x 152 cm x 45 cm made of MS angle iron 40*40*5* mm and sheet of 16 SWG & three sides covered with sheet & rigid frame & with 4 compartments
34	First Aid box	34	Equipments	Complete for cuts and burns on body
35	Steel lockers with 8 Pigeon holes	35	Equipments	A Standard Steel Locker having capacity of 8 compartment having 6.5 Ft X 3 Ft X 1.5 Ft Dimensions (Length X Breadth X Height) and material of the locker is 20 SWG and entire locker should be powder coated with locking arrangement of each compartment.
36	Steel almirah / cupboard	36	Equipments	Standard Steel Almirah having dimensions of 1980 X910X480 mm with cupboard as per IS 3312-1984 made of MS sheet 18 SWG , Five compartments adjustable type ,Good quality handle , Fitted with lock & key
37	Black board and easel with stand	37	Equipments	Blackboard and easal size 6 foot by 4 foot with stand
38	Flash back arrester (torch mounted)	38	Equipments	A spring loaded non-return valve prevents slow or sudden reverse gas flow which could form explosive mixtures in the gas supply.

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39	Flash back arrester (cylinder mounted)	39	Equipments	A temperature sensitive cut-off valve extinguishes sustained flashbacks long before the internal temperature of the arrestors reaches a dangerous level. A spring loaded non-return valve prevents slow or sudden reverse gas flow forming explosive mixtures in the gas supply.
40	Welding Transformer with all accessories (400A, OCV 60–100 V, 60% duty cycle)	40	General Installation	Input Voltage= AC 415V+ -10%.3 PH, Frequency= 50 Hz, O.C.V-60-100Volt, Output Current (minimum) 60- Output Current (Maximum) 400amps, forced air cooled type, Rated Duty Cycle= 60% , Efficiency = 85%, class of Insulation A. (copper winding)
41	Welding Transformer (or) Inverter based welding machine with all accessories (300A , OCV 60 – 100 V, 60% duty cycle)	41	General Installation	Input Voltage= AC 415V+ -10%.3 PH, Frequency= 50 Hz, O.C.V-60-100Volt, Output Current (minimum) 60- Output Current (Maximum) 300amps, forced air cooled type, Rated Duty Cycle= 60% , Efficiency = 85%, class of Insulation A. (copper winding)
42	D.C Arc welding rectifiers set with all accessories (400 A. OCV 60 – 100 V, 60% duty cycle)	42	General Installation	Input Voltage-415± 10%, 3 PH, Frequency= 50 Hz, O.C.V-60-100Volt, class of Insulation A, Forced air cooling type
43	GMAW welding machine 400A capacity with air cooled torch,	43	General Installation	Input Voltage= AC 415V, 50hz, 3Ph, Frequency= 50 Hz, Output Current (Maximum) 400amps, Thyristor or Diode type, class of Insulation F, Forced air cooling type, air cooled torch, wire feeder with permanent
44	AC/DC GTAW welding machine with water cooled torch 300 A,	44	General Installation	Input Voltage= AC 415V+ -10%.3 PH, Frequency= 50 Hz, Output Current (Maximum) 300amps, forced air cooled type, Rated Duty Cycle= 60% , Efficiency = 85%, class of Insulation H. Forced air cooling type,
45	Air Plasma cutting equipment with all accessories, capacity to cut 25 mm clear cut	45	General Installation	Input Supply Voltage 415± 10%, 3 Phase, 50 Hz, Cutting Amps. range 25-80 Amps, Cutting capacity mild steel Recommended- 25mm, Duty cycle (Maxi. Output) @ 60%, Pilot Arc facility, Type of cooling- Forced Air, Insulation Class H 9.
46	Air compressor suitable for air plasma cutting system	46	General Installation	5 H.P, Double Cylinder, Double stage, 17.5 CFM, Working Pressure 175 PSI, Tank Capacity-250ltr
47	Auto Darkening Welding Helmet	47	General Installation	Solar/Battery operated Automatic Protection level 9-13, ith machine/equipment.
48	Spot welding machine to 15 KVA with all accessories	48	General Installation	Spot welding machine easily pedal operated(mechanically). Machine should be suitable for connection 2 line of 400/415 volt, 3 phase 50 Hz supply, Input Volt 415± 10%, 2 line of 3 Phase, 50 Hz, Max. KVA-15, Max. capacity in MS sheet 5 to 10 MM (5+5)5, Throat Depth 400 MM Aprox, Throat clearance 200 MM Aprox, Transformer cooling-Natural Air
49	Portable gas cutting machine capable of cutting Straight & Circular with all accessories	49	General Installation	Motor in put supply 220± 10%, AC/DC, 50 Hz, Cutting Capability in straight & circular, Accessories: 1. Aluminium Track 1.8 Metre Long 2. Standard Circle Cutting Attachment 3. Hose Pipes Black & Red (Inside Dia. 5 mm) 5 Metre each 4. Extra Cutting Nozzles (Acetylene & LPG) 3 Each 5. LPG Regulator 6. Spanner Set (Standard Tool Kit For Machine) 7. Instructional Manual (With Circuit Diagram)
50	Pedestal grinder fitted with coarse and medium grain size grinding wheels dia. 300 mm	50	General Installation	Double Ended type with direct drive, totally enclosed Motor with Ball Bearing, approved closed wheel guards and eye shields, Cast Iron or Sheet metal pedestal for floor mounting, Complete with control switch with no-volt and over load protection, six vitrified grinding wheels, with Wheel Dia-30 cm (300mm OR 12"), Width Of wheel 50mm, Distance between Wheels 600mm, Spindle speed-1400 Rpm, Motor (copper wound) 1.5 Kw (3 Phase)2800 RPM
51	Bench grinder fitted with fine grain size silicon carbide green grinding wheel dia. 150 mm	51	General Installation	Bench grinder fitted with fine grain size silicon carbide green grinding wheel dia. 150 mm 1.5 hp motor, 3ph, Spindle speed 1400 Rpm, 2800 RPM
52	AG 4 Grinder	52	General Installation	235V AC ,50 Hz, 850 Watts, 13000 rpm, 100 mm Grinding wheel with Side Handle and Safety Guard
53	Suitable gas welding table with fire bricks	53	General Installation	Made of M.S. angle iron 40x40x6mm, Size: L x W x H 122 x 92 x 60 cm (4' x 3' x 2'), with fire bricks as per IS Standard.
54	Suitable Arc welding table with positioner	54	General Installation	Made of M.S. Angle iron frame 40x40x6mm, top M.S. flat, 35x10mm, Size: (L x W x H) 122cm x 92cm x 60cm. (4' x 3' x 2') with positioner for welding in all positions
55	Trolley for cylinder (H.P. Unit)	55	General Installation	Trolley made of M.S. pipe dia25mm x WT 16SWG, base M.S. angle 35x35x6mm, wheel rod dia 25mm thick with lock & key. Cylinder holding chain M.S. heavy duty/Thick, Note: Rubber wheel guarantee/Warranty for Five Years.
56	Hand shearing machine capacity to cut 6 mm sheets and flats	56	General Installation	Hand lever operated suitable for cutting sheets, flats, Round, Square upto 6mm, Blades made of high carbon steel or high speed steel
57	Power saw machine 18"	57	General Installation	Size - 18 inches blade hydraulic type, with 2HP ,3 ph, rpm 1440 motor fitted. Stroke adjustable-5.25 inches, No. of stroke /min- 85 to 100, capacity of round bar- 12 inches, Cap of square bar 10 inches, fitted with Gear box.

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58	Portable drilling machine (Cap. 6 mm)	58	General Installation	Equipped with reverse & forward motion. capacity 6mm, rated voltage-220/230 v, A C, No load speed - 2500 rpm, Input power 400 Watts complete with all accessories Durable & Easy to handle Fiteed with ON/OFF switch
59	Oven, electrode drying 0 to 350°C, 10 kg capacity	59	General Installation	ELECTRODE DRYING OVEN TEMPERATURE RANGE 0°C TO 350°C, CAPACITY 10KG (450 MM Electrode Length). THERMOSTATIC DIGITAL CONTROLLED TEMPERATURE, Input Supply 220+10% AC, 50 Hz. 1 Phase, Air Circulation Natural & Siphoning System
60	Work bench 340x120x75 cm with 4 bench vices of 150 mm jaw opening	60	General Installation	Work bench 340x120x75 cm made of heavy wooden top of atleast 50mm thick wood and frame made of angle iron 50*50*6 mm fitted with rigis supports with 4 bench vices of 150 mm jaw opening
61	Oxy Acetylene Gas cutting blow pipe	61	General Installation	copper alloy made with cutting capacity upto 20mm
62	Oxygen, Acetylene Cylinders	62	General Installation	Standard size for commercial use
63	CO2 cylinder	63	General Installation	standard size for commercial use
64	Argon gas cylinder	64	General Installation	standard size for commercial use
65	Anvil 12 sq. inches working area with stand	65	General Installation	Anvil 12 sq.inches working area of weight 100 kgs fitted with stand
66	Swage block	66	General Installation	Swage block 50kg
67	Die penetrant testing kit	67	General Installation	Cleaner, Penetrant , Developer (non-toxic & non-corrosive)
68	Magnetic particle testing Kit	68	General Installation	Iron powder (Red & Black), (portable type)
69	Fire extinguishers (foam type and CO2 type)	69	General Installation	CO2 and foam type
70	Fire buckets with stand	70	General Installation	Standard Fire Buckets 4 nos. ,made of GI material,Red painted and round bottom with handle and must be of 9 Litre Capacity filled with dry sand and stand have to arrangement for hanging of 4 Buckets.stand made of MS Angle 35mm x 35mm x 4 mm.
71	Portable abrasive cut-off machine	71	General Installation	220v 50 Hz , 2100 watts, 3600 rpm/min , Wheel dia 14 inches
72	Suitable Gas cutting table	72	General Installation	Specification :-Made of M.S. Angle iron frame 40x40x6mm a , top M.S. flat40x10mm Size: (L x W x H) (5' x 3' x 2.5') With Stool size 12x 12x18" made of 1" square pipe wt 16 SWG, stool top 3/4" laminated board
73	Welding Simulators for SMAW/GTAW/GMAW	73	General Installation	input power 230V/50Hz, LED Monitor size large enough to accomadate work area , monitor with CPU, height adjustment column.
74	Instructor's table and Chair (Steel)	1	Class Room Furniture	Table specifications- body made from MS square pipe 16 gauge, 30 x 30 mm top, size 4' x 2.5' x 2.5' ,commercial ply 19 mm on 1 mm sunmica right hand 3 drawer with lock, MS sheet 22 GAUGE, powder coated paint. Chair pecifications -Chair Frame made of M.S Square Pipe 25 mm, thickness of pipe 1.5 mm, seat size18" x 18" , height 18" with arms, seat and back cushion,Suitable powder coating paint
75	Students chairs with writing pads	2	Class Room Furniture	Chair Frame made of M.S Square Pipe 25 mm ,thickness of pipe 1.5 mm, seat size18" x 18" , height 18" with arms, seat and back fitted of 12 mm moulded commercial ply, with writing pad of 20" x 14" made of commercial ply 19 mm with sunmica top having folding arrangement
76	White board size 6'x4'	3	Class Room Furniture	White board size 6'x4' made of good quality scratch proof material
77	Instructors lap top with latest(vista & above) configuration pre loaded with operating system. and MS Office package.	4	Class Room Furniture	4th Generation intel i7 processor(3.4 GHz, 8 MB Cache with 4GB RAM, 1 TB harddisk, wi-fi enabled, USB optical mouse, 15"LED Screen , Standard ports and connectors, DVD Writer, inbuilt Speakers and Mic. with web camera with preloaded licensed window 8.1 or latest operating system and latest internet security input. preloaded licensed latest version MS Office .

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78	LCD projector with screen.	5	Class Room Furniture	type DLP, Multimedia projector display technology , Light output 3700 lumens, 1024x768 resolution, aspect ratio-4:3,contrast ratio-3000:1 with standard accessory
79	Welding Process, Inspection & codes DVD/ CDs	6	Class Room Furniture	Inspection & codes DVD/ CDs (as per NIMI & A.W.S)