Kigali- Rwanda
Email : info@rtb.gov.rw
Web site :www.rtb.gov.rw

P.O Box 4940 Kigali

Training Organization Guide (ToG)

For

TVET CERTIFICATE III in Plumbing Technology

August 2022

Production team

Coordination

RWAMASIRABO Aimable, Head of Curriculum and Instructional Materials. Development Department, RTB

Facilitation

ISHIMWE Simon Pierre, Construction & building Trades Specialist, RTB

MUSABYIMANA Marie Jeanne, DSM Training

Participants

S/N	Names	Institution	Position
1	GASAGURE Jean Baptiste	NIZO CONSTRUCTION LTD	Plumber
2	KAGINA Dieudonne	AIPAR Ltd	Site Manager
3	UWIMANA AbdoulKarim	GLECOS Ltd	Plumber
4	RENZAHO Emmanuel	NYAGISOZI TVET	SCHOOL MANAGER
5	RINGUYENEZA Jean Berchimas	KEPLER COLLEGE	Plumber Consultant
6	KARANGWA Protais	RECE Ltd	Plumber
7	TUMUSABE Yvonne	Saint Martin GISENYI TVET	Trainer
8	UWANYIRIJURU David	RPO	Plumber
9	NYIRANEZA Theopiste	EDY's Consultant Ltd	Plumber

Table of contents

Production team 2

Part 1: Pedagogical organization 4

1. Presentation of the training programme 4

2.1 Information about competencies 6

3. Human resources 8

3.1. Trainers' qualifications and competences (Trainers' profile) 8

1. Material Resources 16

1.1. Category 1: Machines, equipment and accessories 16

1.2. Category 3: Tools 33

1.3. Category 3: Safety materials 50

1.4. Category 4: Consumables and raw materials 53

1. Training facilities 131

2.1. Furniture and office materials 131

1. Didactic materials 137

2. Audio-visual materials 139

2.4. Infrastructures 141

Part 1: Pedagogical organization

1. Presentation of the training programme

1.1. Qualification

This qualification prepares individuals to integrate the Plumbing industry with the professionalization of Domestic Plumber; it also offers the opportunity to execute the works as Pipe Joiner/fitter, Domestic water supply installer, maintenance Technician plumber, House Drainer, Sanitary appliances installer while ensuring that safety, security and environmental regulations are respected.

The areas of intervention for this occupation focus typically on pipe joining/fitting, domestic water supply installation, repairing and maintaining plumbing facilities, house drainage, sanitary appliances installation, hardware services delivery and plumbing materials' store keeper within a factory. This contributes to the improvement of human health, sanitation, environment hygiene and the national economy.

1.2. Minimum Entry requirements

The minimum entry requirement to this course is to be physically and mentally fit with an interest in building and construction services and related areas.



Pathways into the qualification

Preferred pathways for candidates entering this qualification include:

- To have completed the 9 Year Basic Education
- Recognition of prior learning related to this qualification

Pathways from the qualification



Progression route of candidates achieving this qualification include:

- TVET Certificate IV in Plumbing Technology
- A range of other related TVET Certificate IV qualifications.

2. The training programmer

2.1 Information about competencies

No	Code	Complementary competencies	Credit
1	CCMOL302	Describe the occupation and learning process	3
2	CCMHE302	Maintain SHE at workplace	3
3	CCMBC302	Create a Business	3
4	CCMWC302	Communicate effectively at workplace	3
5	CCMEN302	Communicate simply using English in familiar situation	3
6	CCMCL302	Apply computer literacy	3
7	CCMCZ301	Comply with Citizenship values	3
8	CCMFT302	Pratiquer l'activité de communication en français dans le métier	3
9	CCMKK302	Kutumia Kiswahili Wastani	3
10	CCMKN302	Gukoresha Ikinyarwanda kiboneye	3
Total			30

No	Co-Curricular activities	Credit

1	Sports/Clubs	3
2	Self-study/Library Reasearch	3
Total		6

	No	Code	Core competencies	Credit
GENERAL	1.	GENAM301	Apply Algebra and Trigonometry	10
	2.	GENBC301	Demonstrate Basics of Chemistry	3
	3.	GENPY301	Apply general physics	4
	4.	GENGB301	Introduction to General Biology	5
	5.	PLTBE302	Basic Electricity	7
SPECIFIC	6.	PLTHD302	Installation of House Drainage system	10
	7.	PLTPJ302	Pipe Joining	10
	8.	PLTPW302	Plumbing works Planning	7
	9.	PLTSA302	Sanitary Appliances installation	12
	10.	PLTPF302	Plumbing Facilities repair and maintenance	10
	11.	PLTWS302	Install domestic water supply	12
	12.	BDCIA302	Integrate the workplace	30
	Total			120

3. Human resources

3.1. Trainers' qualifications and competences (Trainers' profile)

No	Modules	Qualification	Field or training experience	Technical teaching experience	Languages skill	ICT skills.
1	**Installation of House Drainage system**	• A1/AO in Civil engineering.	0 year of working experience	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD • Arch CAD

		• A1/AO in water and sanitation • A1 in irrigation and drainage technology	0 year of working experience Have A2 in plumbing is a most added value.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD & Arch CAD
2	**Plumbing Works Planning**	• A1/AO in Civil engineering.	No experience	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD • Arch CAD

		• A1/AO in water and sanitation	0 year of working experience Have A2 in plumbing is a most added value.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD • Arch CAD
3	**Basic Electricity**	• A1 in electrical technology	0 year of working experience	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • Fluid SIM Software • MATLAB Software

		• A1 electro-mechanical	0 year of working experience	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • Fluid SIM Software • MATLAB Software
		• A2 in Electrical technology/electricity	0 year of working experience	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • Fluid SIM Software • MATLAB Software

4	**Plumbing facilities repair and maintenance**	• A0/A1 in water and sanitation	0 year of working experience Have A2 in plumbing is a most added value.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD • Arch CAD
		• A0/A1 in Civil engineering.	0 year of working experience	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD • Arch CAD

5	**Pipe Joining**	• A0/A1 in water and sanitation	0 year of working experience Have A2 in plumbing is a most added value.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD • Arch CAD
		• A0/A1 in water and irrigation	0 year of working experience Have A2 in plumbing is a most added value.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD & Arch CAD

		• A0/A1 in Civil engineering.	0 year of working experience	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD • Arch CAD
6	**Sanitary Appliances Installation**	• A0/A1 in water and sanitation.	0 year of working experience Have A2 in plumbing is a most added value.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD & Arch CAD
		• A0/A1 in Civil engineering.	0 year of working experience.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are	Computer literacy • MS word • MS excel

					added values.	• PPT • Internet • AutoCAD & Arch CAD
7	**Install Domestic Water Supply**	• A0/A1 in water and sanitation.	0 year of working experience Have A2 in plumbing is a most added value.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet • AutoCAD & Arch CAD
		• A0/A1 in Civil engineering.	0 year of working experience.	Pedagogical training in TVET (RTTI Training) is an added value.	• Fluent in English. • Fluent in French and Kinyarwanda are added values.	Computer literacy • MS word • MS excel • PPT • Internet AutoCAD & Arch CAD

1. Material Resources

1.1. Category 1: Machines, equipment and accessories

NO	*Equipment*	*Specification*	*Unit Price*	**Quantity**	**Type of room**	**Module code**
1	Trucks	Rim size: 9.00-22.5 Tire size: 315/70R22.5 Engine capacity(cc) 11946 Configuration V6 Injection system: Unit pump system (UPS) Gears: 16 speed forward +2 speed reverse	**80,000,000**	1	Field	PLTHD301
2	Wheel barrow	• Dimension: 620mm(w) x 600(h) x 1400mm(l) • Weight: 10kg • Pan Capacity: 65 liters • Pan Gauge: 1.2mm • Frame: 32mm x 2mm steel round tube Tire: 4ply	**80,000**	10	workshop	PLTHD301 PLTSA301 PLTWS301

3	Calibrated(dump level)	IMAGE Erect MAGNIFICATIO N 24x LENGTH OF TELESCOPE 300 mm OBJECTIVE APERTURE 40 mm STADIA RADIO 02:40:00 AM FIELD OF VIEW 1° 30’ RESOLUTION 0.01 cm at 100 MT PLATE BUBBLE SIZE 12mm X 87.5 mm SENSITIVITY 45°/2 mm CIRCLE DIA METER 75 mm(magnetic) CIRCLE GRADUATION	**500,000**	2	workshop	PLTHD301 PLTPW301
4	Black/white board	1800mm x 1200mm (with 10 set of non-toxic ease wipe marker white board ,low odor, black and red; one set equal to 10pcs)	**150,000**	5	Classroom/workshop	PLTHD301 PLTPJ301 PLTWS301 PLTBE301

5	Hand Drilling machine	Drilling machine, quick change chuck, 1,5 - 13 mm, 2-speed, right/left hand, with additional handle, drill depth stop drilling meters in steel / wood: 13 / 35 mm input power: 770W idle speed: 0-1100/0-2700 1/min	**350,000**	5	workshop	PLTHD301 PLTPJ301 PLTSA301 PLTWS301
6	Power cutting saw	SIZE OF TUBES/RODS TO BE CUT: Tube /Rod OD : 25 to 100 mm Tube wall thickness : 4mm to 30 mm Flat : 25mm x 25mm min to 70mmx70 mm max Approximate Max length of tube for cutting : 6000 mm Cutting accuracy : ± 0.1 mm up to 30 mm : ± 0.2 mm up to 100 mm Taper : Maximum of 0.1 in 100 mm cutting height	**500,000**	3	Workshop	PLTHD301

7	Sand paper				**5,000**	50	workshop	PLTHD301
		Very Fine	A coarser material than Very Fine under the micro abrasives	150, 180 or 220				
		Fine	Cannot remove varnish or paint on wood	100 or 120				
		Medium	Medium to coarse surface texture after sanding	80				
		Coarse	Has the ability to remove material rapidly	40, 50 or 60				

8	**Ladder**	Aluminum ladder Two section Minimum Height:1.8m ,Maximum Extension: 3.7m, Maximum Capacity:150kg Weight: 8kg	**170,000**	4	workshop	PLTHD301
9	AC Welding machine	With three meter welding cable (1.2m for earth clamp and 1.8m for welding torch) and 2m for input power cable; input voltage: 230V; no-load voltage: 48V; current arrange: 35 to 80A; rated duty cycle: 10%; input capacity: 3.3kW; class of insulation: H; applied welding rod: 1.6 to 2.5mm; fuse: 13A; external dimension: 37 x 22 x29cm; weight: 12kg	**400,000**	3	workshop	PLTHD301 PLTPJ301
10	Threading machine	½" to 2" BSPT mod.12r complete with 6 die heads, ratchet handle, 65255	**600,000**	5	workshop	PLTHD301 PLTPJ301

11	PPR Welding machine.	Automatic Grade: Manual Material: Aluminum Voltage: 180 V to 240 V Usage: Welding Plastic Pipes Welding size: 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm	**150,000**	2	workshop	PLTHD301 PLTPJ301 PLTSA301 PLTWS301
12	**A**ir compressor	solid, mobile piston compressor thermal motor protection pressure switch with start-up valve plastic-coated tank and chassis Pressure reducer with manometer for regulated working pressure filling capacity 165 l/min effective delivery volume (at 7.2 bar working pressure) 150 l/min maximum pressure 10 bar motor 230 V 1 ph. rated input power 1,8 kW maximum speed 2.850 /min sound pressure level (LA) 88 dB(A) dimensions 760 x 380 x 660 mm weight 33,5 kg	**300,000**	1	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTSA301 PLTWS301

13	Drain gauge	DCT water interception: 1.6mm per drain, + 0.03mm Cable length: 3m Reservoir sampling tube length: 3m Wick: 60cm inert fibreglass	5,000	5	workshop	PLTPF301
14	Hydro-jet machine	Driver Type: Electric Motor Driven, Diesel engine Driven Brand: Pressure Jet Pressure: 1380 Mounting Option: Skid Mounted, Trolley Mounted Flow Rate: 42 LPM	5,000,000	1	workshop	PLTPF301
15	Rodding stick machine (drain snake),	1/4", 5/16", 3/8", 1/2" and 9/16". Each size has a recommended range of drain pipe diameters they are suitable for.	100,000	2	workshop	PLTPF301
16	Pressure gauge	Maximum Working Pressure 75 kg /cm2 2 Dial Range (Adjustable/programmable through software program) 0-5 to 0-50 Kg/cm2 3 Accuracy ±0.25 % FS or better 4 Resolution Auto 5 Dial size (approximately) 100 mm 6 Display Units (changeable by switch/ programming) kg/cm2 / psi 7 Display type LCD with Backlight 8 Display Lock (pressing PB switch) with Auto OFF 20 sec ON 9	50,000	5	workshop	PLTPF301

		Sensor Response time 200 sec				
17	Hot guns	Maximum Outlet Temperature, dig C (at 20 dig C inlet) 93 Heating Capacity (kcal/hr.) 225 Air Consumption @ 7 bar (slam) 425 Outlet Air Flow Rate (slam) 57 - 227	300,000	2	workshop	PLTPF301
18	Shearing machine	Cutting Capacity (in MS) Length x Thickness 1250 x 2 / 1500 x 4 Crank Shaft Die 65 / 85 Fly Wheel Die 550 / 725 Gear Die 500 / 600	1,500,000	1	Workshop	PLTPJ301
19	Power hacksaw	Power of main motor 0.75 kw, 415 V, 3 Ph., 50 Hz / 1.5 kW, 415 v, 3 Ph., 50 Hz Power of coolant motor 0.09 kW / 0.09 kW	500,000	2	workshop	PLTPJ301

		Space occupied (L x B x H)	1175 x 820 x 1150	1600 X 800 X 1350				
		Net Weight	500 Kg	600 Kg				
20	Hydraulic press bending machine (pipe bender)	Complete with all accessories (movable nozzle from ½" - 2") and stand of tripod /bench work, capacity 720 kg/cm2, model NoSNP-1B			800,000	1	workshop	PLTPJ301 PLTPW301
21	Rolling machine	Dia. Of Roll	50mm	75mm	500,000	1	workshop	PLTPJ301 PLTPW301
		Packing Dimension	134 x 45 x 59mm	175 x 50 x 60mm				
		Net Weight	95kg	245kg				
		Gross Weight	120kg	275kg				
22	Folding machine	Max. clamping bar lift (mm)	47	47	500,000	1	workshop	PLTPJ301 PLTPW301
		Folding angle	0-135°	0-135°				
		Packing size (cm)	146 x 62 x 127	247 x 94 x 132				
		Net Weight	285kg	490kg				

23	Angle grinder (cutting grinder)	2400 watt, 230 mm disc capacity; Starting current limitation, Switch with safety interlock, Rotating grip adjustable to ideal position, Side handle to be fitted on three positions of housing, C/w swivel handle and quick lock	150,000	5	workshop	PLTPJ301 PLTPW301
24	Sander machine	Motor: 1Hp Sending belt size: 6’’X 62” Capacity: 6”X4” Sending belt speed: 50HZ/ 1160 R.P.M 60HZ/ 1400 R.P.M Table height from floor: 920mm	150,000	5	workshop	PLTPJ301 PLTPW301
25	Welding plant (Oxy acetylene welding machine)	.1/4" x 12-ft. R-grade oxygen and acetylene hoses; welding nozzle; cutting tip; Cutting attachment; shade goggles; Torch handle with built-in flashback arrestors and check valves; Tip cleaners and striker; Packed in a heavy duty molded storage case; 1/16" welding capacity; 1/2" cutting capacity; Solid brass torch handle and regulators; Spark lighter bar; fully charged, Acetylene cylinder; 50 litters; 2.60 bar; fully charged, Cylinder trolley Heavy Duty Steel Construction; rolls on two 6 inch wheels; compact single handle design; tool storage	2,500,000	1	workshop	PLTPJ301 PLTPW301
26	Crimping machine	Horizontal. Voltage: 415 V,230 V or 415 V. Crimping Capacity: Mm 6 mm to 52 mm. Opening Front Side: 155 mm.	80,000	3	workshop	PLTPJ30 PLTPW301

27	Pushing machine	Machine Size – 4.25m L x 2.23m W x 1.50m H · Machine Weight – 1500 kg · Machine Power – 230 VAC, 3 PH, 50/60 HZ, 30 AMP · Air Supply – 100	300,000	2	workshop	PLTPJ301 PLTPW301
28	Water pump	**Maximum output capacity (L/min)** Inlet/outlet diameter thread type (mm/inches) Total head (m) Suction head (m) Pressure (bars)	400,000	2	workshop	PLTPJ301 PLTPW301
29	Hydro testing pump	Motor Speed 1440 RPM Pressure 70 kg/cm2 Capacity 150 LPH Material Mild Steel	300,000	2	workshop	PLTPJ301 PLTPW301
30	Tracer gas detector.	LCD Display. 128 x 160 full color graphic display; Probe Length. 17 inches (43 cm); Warranty. 2 years (includes sensor); Model Number. Sensor Life: 10 years Power Supply: 4 AA alkaline batteries Sensitivity: Equivalent:.05 oz./yr. R134a.01	80,000	2	workshop	PLTPJ301 PLTPW301

31	Arc welding machine	Welding machine for manual metal arc welding (MMA) of 0.8 up to 25 mm with consistently high quality. 400 amp welding current. MMA welding with rutile and basic coated electrodes for all un-and low-and high-alloy steels, nickel and copper alloys. Features: Digital display, ARC-Force, VRD function for increased safety, Artistic, Hot Start, Lift ignition, Automatic cooling ventilators. For rod electrodes up to 6, 2 mm diameter. Rated voltage AC 230V, 50/60 HZ, Overcurrent protection 32A, ; IP21, weight 24kg; Standard accessories (Electrode holder 3 m, Ground wire 3 m) included; Manual in English and French. Stalwart ARC / MMA / E-HAND 400 or similar. Plus 2 additional sets of spare welding cables (Electrode holder cable and earth cable) and welding cable repair sets (copper clamps, spare electrode holders, earth clamps).	300,000	2	workshop	PLTPJ301 PLTPW301
32	Theodolite	Ni-H Battery Source Voltage: 4.8V 1,500mAh Angle Measuring System Made of Angle Measurement Photoelectric Incremental Reading	800,000	2	workshop	PLTPW301

33	Total station	Angle Measurement Display Resolution: 1”/5” (0.0002 / 0.001gon, 0.005 / 0.02mil) Accuracy: (ISO 17123-3:2001) 5”(IM-55)/2” (IM52) Dual Axis Compensator Working range ±6’ (±111 moon)	800,000	2	workshop	PLTPW301
34	Extension cable	50m, 2.5 mm cab-tire, four sockets, switched	140,000	5	workshop	PLTPW301 PLTSA301 PLTWS301
35	Manometer	Manometer: Manometer is fabricated in 25mm / 32mm thick acrylic plastic solid block virtually unbreakable stable and free from distortion. Accuracy: ±0.25%, ±0.1% of F.S.D. OR Better Test Pressure: 1.5 Time of Operating Pressure Temperature: Below 70 °C	200,000	2	workshop	PLTSA301

36	Pipe jointing machines	Power source Electric Suitable for Pipe Size 50 / 63 / 75 / 90 / 110 / 125 / 1 Voltage range 230V - 50/60Hz Working Range Models 50 to 160 mm	500,000	2	workshop	PLTSA301
37	Copper Pipe bender	Copper tube bender P23133 pipe bender and conduit bender; size:14mm,16mm,20mm,25mm,32mm	150,000	5	workshop	PLTWS301
38	Pressure testing pump	With manometer, to test all types of installations such as heating, compressed air and refrigeration systems, oil installations, fire lines and small bore pipelines. 50072 Features: Pressure maintained automatically – no valve to be closed manually; Filter on inlet and outlet for better reliability; Corrosion and impact proof construction; 2 stage lever action for fast filling and pressurizing; Tank capacity 13,5L	500,000	2	workshop	PLTWS301 PLTWS301
39	Thermometer gauge	Temperature measuring range 0 °C-300 °C Range of application: 0-50°C, 0-100°C, 0-150°C, 0-200°C, 0-250°C, 0-300°C Dial: 58mm Install thread: ¼ PT Probe pole die: 6mm Probe length 30-50-70-100mm	80,000	3	workshop	PLTWS301

40	Voltmeter	Torque: Torque is measured in pounds-feet (lo-fi). Synchronous Speed (RPM):Synchronous speed is measured at 3,600 rpm and 60 Hz. Slip Speed %: Slip speed is (slip speed - synchronous speed) / synchronous speed x 100%, expressed as a percentage.	100,000	3	workshop	PLTWS301 PLTBE301
41	Manual pressure test machine	Pressure, 500 kg/cm2 7000 PSI Max Pressure ; Discharge Size, 3/8" Pipe with 1/2 BSP Connection both side ; Plunger, Single Plunger, water tank size 22 Lars	500,000	1	workshop	PLTWS301
42	Hydraulic Machine	**MODEL(HPS) 500/200** Pressing Capacity Tons 500 Table Size mm 1400*1400 Main Ram Stroke mm 700	500,000	2	workshop	PLTWS301
43	MultiMate	DCV: 0-0.1/0.5/2.5/10/50/250-500V; ACV: 0-10-50-250-500kV; DCA: 0-50u-5m-50m-500m-10A; R:0-2k-20k-200k-2M---20M; Continuity buzzer: <30ohm; dB: -10-92db; Sensitivity: DC 20k ohm/V, AC 9K ohm/V; Input Impedance: 600 Ohms; Battery:1.5Vx2 AA, 9Vx1 6F22	80,000	5	workshop	PLTWS301 PLTBE301

44	Power supply	Voltage: 100 to 240 VAC (+ or - 10%). Current rating: 16 A maximum at 100 to 120 VAC and 1451-W output. 16 A maximum at 200 to 240 VAC and 3051-W output. For current ratings of plugs, Frequency: 50 to 60 Hz (nominal) (+ or - 3 Hz for full range)	200,000	2	workshop	PLTBE301
45	Wattmeter	Input Impedance (Ω) 500 k 500 k Frequency (Hz) 12 to 400 12 to 400 240 Volt Range Yes Yes Accuracy (ppm) ± 25 ± 25	80,000	2	workshop	PLTBE301
46	Ammeter	Face Size 2.75in (69.85 mm) Function 0 to 25A Backlighting Amperage 16mA @ 12V DC 20mA @ 24V DC Meter Current 1mA at full scale	60,000	2	workshop	PLTBE301

47	Ohmmeter	Frequency: DC or 47-63 Hz Power consumption (typical, base meter) 1.2W @ 120 Vic, 1.5W @ 240 Vic, 1.3W @ 10 Vdc, 1.4W @ 20 Vdc, 1.55W @ 30 Vdc, 1.8W @ 40 Vdc, 2.15W @ 48 Vdc Power Isolation: 250V rms working, 2.3 kV rms per 1 min test	150, 000	2	workshop	PLTBE301
48	Riveter	Snapping rivet head (4,6,8 mm)	50,000	3	workshop	PLTWS301
49	Bending spring	15mm, 19mm	20,000	5	workshop	PLTWS301

1.2. Category 3: Tools

NO	*Tools*	*Specification*	*Unit price*	Quantity	Type of room	Module code
1	Spade	• No excess of metal, no dents, no cracks • Rockwell hardness C: 35-48; • Carbon content:0.4-0.5%; • Manganese content :0.5-0.8%; • Silicone content :0.25%: • Size: 15cm wide, 24cm length	5000	25	workshop	PLTHD301 PLTSA301 PLTPF3021 PLTWS301 PLTPJ3 PLTPW301
2	Calibrated(Sprit level)	Spirit level, 600 mm light metal, horizontal and 2 vertical vial screwed in and secured, accuracy mind. 1 mm/m	5000	25	workshop	PLTHD301 PLTSA301 PLTPF3021 PLTWS301 PLTPJ301 PLTPW301
3	Tape measure	Pocket measuring tape in case of impact plastic with stop button and belt clip, 2000 mm	3000	25	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301

4	Hoes	Has blade wait 1.1 kg, blade constituent: 0.4%-0.65%carbon, 0.5%-0.8% manganese,0.35% silicon, 0.06% phosphorous and 0.06% sulfur handle length 1200 mm	**4000**	**12**	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
5	Axes	Blades dimension 200*120*65 1,8 Kg, handle length 800(mm)	**10 000**	**5**	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
6	Chisel	Mortise chisel; Sorby:1/8''	**5000**	15	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
7	Pencil	HB of 7mm in diameter	300	50	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301

						PLTPW301
8	Rubber	Rubber, 530 gr. Wooden handle	**8000**	5	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
9	Sharpener	(2.5*1.7*1.1)cubic centimeter	**500**	50	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
10	Hammer	For drilling and chiselling, cpl. in box, 220/50/1 ph., complete with bits 12x400, 20x400, 25x400, 32x450, pointed short and flat short chisels) 1000W	7000	15	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
11	Pen	Writing distance minimum 2,000 metres, approximate quantity of Ink 0,30-0,37 grams	250	50	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301

12	Picks	Pick axe(point *chisel) Head dimension L*W(mm) 610*40,Weght 2.7 Handle length(900 mm)	10000	15	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
13	Hack saw	Blade length 250 to 300 mm*150mm	4000	25	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
14	Adjustable Spanners	140mm. Forged from chrome vanadium steel, hardened, tempered, chrome plated;. Open ends set at 15°, lengths 155mm; jaw capacity 20mm. 120mm Forged from chrome vanadium steel, hardened,	**15000** **12000**	10	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301

		tempered, chrome plated;. Open ends set at 15°, lengths 205mm; jaw capacity 25mm. 100mm Forged from chrome vanadium steel, hardened, tempered, chrome plated;. Open ends set at 15°, lengths 255mm; jaw capacity 30mm.	**10000**	10 10		PLTWS301 PLTPJ301 PLTPW301
15	Screw drivers	screwdriver with power handle, chromed, black tip, blade 10,0x1,6x200 mm and 6,5x1,2x150 mm.	**2000**	25	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
16	Trowel	Masonry, Round insulator type, Blade length: 200mm Blade width: 120mm Handle length:140mm Weight:o.35kg	**3000**	25	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301

						PLTPJ301 PLTPW301
17	Try square	Are typically 3 to 24 inches (76 to 610mm) long.	**4000**	25	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
18	Float	• Size:350*150mm • Light weight polyurethane construction • Large comfortable handle • Will not warp under load	**3000**	**15**	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF302 PLTWS301 PLTPJ301
19	PPR Scissors	1.calbon steel or 65Mn blade 2.alumnium body 3.ratchet mechanism	15000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301

		4. High strength anticorrosion. surface treatment				PLTPJ301 PLTPW301
20	**Scriber**	Double ended hardened steel engineers scriber. Knurled & blacked grip.	3000	25	Workshop and field	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
21	Brooms	• Material: plastic and wood • Size: medium Height: 1-1.5 m Colour: any	4000	10	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF302 PLTWS301 PLTPJ301 PLTPW301
22	Mops	• Material: cotton • Size: small • Shape: any • Height: 1-2m • Colour: any	3000	10	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF302 PLTWS301 PLTPJ301

23	Cloth rugs	Material 100% cotton fabric Size:24’’W*36’’L/24’’W*51’’L(Approx)	5000	10	Workshop	PLTHD301 PLTPW301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301
24	Pipe wrench	Size:14''; Material: steel; Types: offset and ridged	10000	50	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
25	Brush	• Material: Plastic • Handle: Wooden handle	4000	25	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301

26	Ratchet spanners	Chain size:8 Lashing capacity:40KN Weight KG:5.1	40000	10	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
27	Pipe Cutter	1/8'' to3/8''; Die-cast cutter body with fold-away pipe; De-burring tool; Smooth action thread with one piece cutter-slide and hardened alloy steel cutting wheel	25000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301
28	Drain stick	Overall length (ln) Construction :Nylon Features: flexible with an angled head for tight bends in pipe.	20000	1	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
29	Stapler	Stapler size. 8/10/12 mm Material. Steel	10000	5	workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
30	Drain Auger	Diameter :6mm Length:3m	15000	5	Workshop	PLTHD301 PLTSA301 PLTPF301

						PLTWS301 PLTPJ301 PLTPW301
31	Plungers	Dimension: 140x88mm; length of the handle:450mm; made in plastic rubber	5000	10	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
32	Rule	300mm/12''	3000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301 PLTPW301
33	Pliers	• Chrome vanadium steel • Induction hardened cutting edges • Serrated gripping surfaces • L (mm):180 • Weight (g):240	4000	15	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301

34	Plumb bob	Plumb line length, 5m; weight 200g	15000	5	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
35	Vernier caliper	Material: carbon steel, stainless steel Hardness: carbon steel 700HV.Min Stainless steel: 550HV.Min	70000	15	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
36	Snips	Rolson 22157 Tin snips,250 mm	50000	15	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
37	Combination square	Order no. 180-910U* Size:300 mm Graduation:1mm,0.5mm	15000	25	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301

38	Tool boxes	metal min. 700 x 270 x335mm	80000	25	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
39	Wooden Shelves	Size: H 1800*L2000*W500mm	120000	20	workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
40	Calculator	Any scientific calculator	5500	25	Workshop	PLTHD301 PLTSA301 PLTPW301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301 PLTPW301
41	Maker pen	• Item #: 11501 Black,11502 Blue, 11504 Led,115012 violet • Markingwidths:1.5mm.,7mm.,15mm.(0.059'',0.2275'', 0.590'')	15000	10	Workshop	PLTPW301 PLTHD301 PLTSA301 PLTPF301

		• Dimensions:5,88'' L*1.13'' ᵠ(150*29mm)* • Dry time ,approx. 5 sec				PLTWS301 PLTPJ301 PLTBE301 PLTPW301
42	Chalk	Chalk(white& yellow), cylindrical, extruded, length approxi.80mm, diameter 10 mm	12000	10	Workshop	PLTHD301 PLTSA301 PLTPW301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301 PLTPW301
43	Foot steel tape	Dimension: (L*W*H)10.25*2*13 inches Blade length 200 feet Blade material: Nylon coated blade	40000	5	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301
44	String line	Mason line –nylon masonry string with 500-feet,blcack and white flecked	1000	15	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301

						PLTPJ301 PLTBE301 PLTPW301
45	Hose pipe	Hose pipe: length 6m-12m Temperature:60 Deg C Pressure: 12 bar Diameter: 2 1/2 pipe	90000	1	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
46	Silicon gun	• Capacity: 600ml • Weght:14.5 ounces • Length: 9 inch • Application: industrial • Material :plastic	20000	5	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
47	Tester	Voltage range:12-690AC/DC LED resolution; +/-12,24,50,120,230,400,690V Tolerance: acc, EN 61243	2000	25	Workshop	PLTBE301 PLTPW301

48	Machete	• Size: 2.2mm to 2.4mm thick • Length :60cm	3000	10	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
49	Erasers	Eraser , soft ,white, synthetic or natural rubber, non toxic, Dimension: 30*20*10mm	500	10	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
50	Pipe vice	Bench vice, drop forged, with anvil, opening in front, jaw width: 120 mm, opening of jaws: 170 mm, depth of jaws: 100 mm German Industry Quality (PROMAT) or the best Peddinghouse or similar	100000	15	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301

51	Pipe vice	Leg vice, fixed and movable jaws are made of high-grade, steel castings, ensuring high strength and long service life; other parts are of high quality constructional steel	200000	15	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTPW301
52	Hack saw blade	Hack saw blade HSS bi-metal, 300mm	2000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301 PLTPW301
53	File	File, Flat(35 pieces) and triangle(20 pieces), 300 mm, Cut 1 (incl. Handle)	10000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301 PLTPW301
54	File	File, Half-Round (20pieces) and Square (20pieces) 300 mm, Cut 1 (incl. Handle)	10000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301

55	File	File, Round, 300 mm, Cut 1 (incl. Handle)	10000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301
56	Trimming Knife	Retractable Blade, metal housing	4000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301 PLTPW301
57	Allen keys sets	Hardened steel Handy Storage holder Size:(2 to 14mm)	10000	5	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301 PLTPW301
58	Blow lamp	Ergonomic multi position handle; High quality brass nozzle; Push gas control and ignition knob; Equipped with a wire stand; Flame temperature :1, 800°C; CG 3500 gas cartridge; Gas consumption of 225g/h; Runtime: 1h 30min; Weight: 333g	180,000			

1.3. Category 3: Safety materials

N°	Name and description	Specifications	Price	Quantity	Type of room	Module code
1	Safety boot	• Upper material: PVC • Construction: PVC injection • Water / Acid / Alkali / oil / grease resistant, non-slip • Resistant at low temperatures • Unit : pairs	50000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301
2	Overall	• Style : Overcoat • Material: Cotton/Polyester • Feature: Anti-Wrinkle, Quick Dry Breathable • Structure : Open Fronted • Long arms • Unit :piece	15,000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301

3	First aid tool kit	wall mounted box, containing of 20 individually wrapped sterile adhesive dressing (assorted size), 4 individually wrapped triangular bages (preferably sterile), 6 safety pins, 6 medium sized individually wrapped sterile unmediated wound dressings(approx. 12x12cm), 1 pair of disposable glove	100000	2	Workshop	PLTBE301 PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301
4	Apron	• Cotton 100%, • Have one pocket in front • Small, Medium to large size • Sleeveless	10000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301
5	Disinfectant	• Surface Strong disinfectant, liquid, alkyl dimethyl ammonium chloride • Shelf life: more than 1 year • Unit : liter	9000	50L	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301
6	Sanitizer	• Germ killing products, alcohol based sanitizer (98% glycerine). • Autaurized by RFDA. • Unit : liter	5000	20L	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301

						PLTPW301
7	Extinguisher	6kg, ABC	40,000	10	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301
8	Protective goggle	Protective goggle clear and darked, plastic	4500	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301
9	Protective gloves	gloves, 5-finger, split leather	4,500	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301
10	Protective goggle	face-view, plastic	12,000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301

						PLTPJ301 PLTBE301
11	Protective helmet	Plastic helmet	8,000	25	Workshop	PLTHD301 PLTSA301 PLTPF301 PLTWS301 PLTPJ301 PLTBE301

1.4. Category 4: Consumables and raw materials

SN	Name and description	Specification	Price/Unit	Quantity	Type of room	Module Code

1.	Elbow	PPR DN 25	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
2.	Elbow	PPR DN 25 M	1500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
3.	Elbow	PPR DN 25 F	1500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
4.	Elbow	PPR DN 20 M	1500	100	Workshop	PLTHD301

						PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
5.	Elbow	PPR DN 25 F	1500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
6.	Elbow reducer	PPR DN 20*25	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

7.	Elbow	PVC 50mm diameter	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
8.	Elbow	PVC 90mm diameter	1500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
9.	Elbow	PVC 110mm diameter	1500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

10.	Elbow	PVC 63mm diameter	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
11.	Galvanised elbow	1/2inch	800	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
12.	Galvanised elbow	3/4inch	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

13.	Galvanised elbow	1inch	2000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
14.	Galvanised elbow	1 ¼ inch	4000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
15.	Galvanised elbow	1 ½ inch	5500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

16.	Galvanised elbow	2inch	8000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
17.	Galvanised elbow	2 ½ inch	16000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
18.	Galvanised elbow	3 inch	25000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

19.	Galvanised elbow	4 inch	30000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
20.	Galvanised elbow reducer	1X 1/2 inch	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
21.	Galvanised elbow reducer	1 X 3/4inch	2000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

22.	Galvanised elbow reducer	2 X ½ inch	3000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
23.	Galvanised elbow reducer	2 tX 3/4inch	4000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
24.	Galvanised elbow reducer	2 X 1inch	8000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

25.	PVC Bend (45^0 elbow)	PVC 50 DIA	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
26.	PVC Bend (45^0 elbow)	63 DIA	1500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
27.	PVC Bend (45^0 elbow)	90 DIA	3000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

28.	PVC Bend (45^0 elbow)	PVC 110 DIA	3000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
29.	Tee fitting	PPR 20 DN	1000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
30.	Tee fitting	PPR 25 DN male	1500	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

31.	Tee fitting	PPR 20 DN Female	1500	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
32.	Tee fitting	PPR 32 DN male	1500	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
33.	Tee fitting	PPR 32 DN Female	1500	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

34.	Tee fitting Tree-Way	PPR 25 DN	3000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
35.	Tee fitting	PPR 25DN	1000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
36.	Tee reducer fitting	PPR 25X ½’	1500	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

37.	Galvanised tee	3/4inch	1500	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
38.	Galvanised tee	1 ¼ inch	2500	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
39.	Galvanised tee	1 ½ inch	5000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

40.	Galvanised tee	2 inch	8000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
41.	Galvanised tee	2 ½ inch	12000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
42.	Galvanised tee	3 inch	15000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

43.	Galvanised tee reducer	¾ X1/2 inch	2000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
44.	Galvanised tee reducer	1 X 3/4 inch	3000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
45.	Galvanised tee reducer	2 X1 inch	10000	30	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

46.	WYE-fitting	PVC/ T-Y 90mm diameter	6000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
47.	WYE-fitting	PVC/ T-Y 110mm diameter	8000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
48.	WYE-fitting	PVC/ T-Y 50mm diameter	2500	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

49.	WYE-fitting	PVC/ T-Y 63mm diameter	4000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
50.	Plastic TEE	PVC 50 DIA	2000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
51.	Plastic TEE	PVC 63 DIA	2000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

52.	Plastic TEE	PVC 90 DIA	2500	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
53.	Plastic TEE	PVC 110 DIA	3500	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
54.	WYE-fitting	Galvanized T-Y 1/2inch diameter	2000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

55.	WYE-fitting	Galvanized T-Y 3/4inch diameter	3000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
56.	WYE-fitting	Galvanized T-Y 1 inch diameter	5000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
57.	WYE-fitting	Galvanized T-Y 1 ¼ inch diameter	6000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

58.	WYE-fitting	Galvanized T-Y 1 ½ inch diameter	8000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
59.	WYE-fitting	Galvanized T-Y 2 inch diameter	15000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
60.	WYE-fitting	Galvanized T-Y 2 ½ inch dia	18000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

61.	WYE-fitting	Galvanized T-Y 3 inch dia	25000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS30
62.	Socket	PPR 20 DN	500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
63.	Socket	PPR 25 DN	500	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

64.	Socket	PPR 25 DN male Threaded socket	800	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
65.	Socket	PPR 25 DN female Threaded socket	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
66.	Socket	PPR 20 DN male Threaded socket	400	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

67.	Socket	PPR 20 DN female Threaded sock[1]et	600	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
68.	socket	PVC 50mm diameter	1000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
69.	socket	PVC 63 mm diameter	2000	100	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
70.	Galvanised socket	3/4 inch	1000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
71.	Galvanised socket	1inch	1500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
72.	Galvanised socket	1 ¼ inch	2000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
73.	Galvanised socket	1 ½ inch	2500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
74.	Galvanised socket	2 inch	4000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
75.	Galvanised socket	2 ¼ inch	5000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
76.	Galvanised socket	2 ½ inch	6000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
77.	Galvanised socket	3 inch	9000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
78.	Galvanised socket reducer	¾ X 1/2inch	1000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
79.	Galvanised socket reducer	1 X 3/4 inch	3000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
80.	Galvanised socket reducer	2 x 1 inch	5000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
81.	Galvanised socket reducer	¾ X 1/2inch	1500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
82.	Plastic reducer	PVC 110X90 DN	6500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
83.	Plastic reducer	PVC 90 X 75 DN	5500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
84.	Plastic reducer	PVC 75 x 63 DN	4500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
85.	Plastic reducer	PVC 63x 50 DN	3000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
86.	PVC female Socket adapter	½’ X 16DN	1200	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
87.	PVC female Socket adapter	¾ ‘ - 25 DN	1200	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
88.	PVC female Socket adapter	1’ - 32DN	2500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
89.	PVC female Socket adapter	2”- 63DN	7000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
90.	PVC female Socket adapter	2 ½’ - 75 DN	7000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
91.	PVC female Socket adapter	3’- 90 DN	15000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
92.	PVC female Socket adapter	4’- 110 DN	17000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
93.	PVC male Socket adapter	½’ – 16DN	1200	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
94.	PVC male Socket adapter	¾ ‘ - 25 DN	1200	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
95.	PVC male Socket adapter	1’ - 32DN	2500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
96.	PVC male Socket adapter	2”- 63DN	7000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
97.	PVC male Socket adapter	2 ½’ - 75 DN	7000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
98.	PVC male Socket adapter	3’- 90 DN	15000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
99.	PVC male Socket adapter	4’- 110 DN	17000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
100.	PPR Pipe	PPR 20 DN, green color, 4m	3000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
101.	PPR Pipe	PPR 25 DN, 4m	5000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
102.	PPR Pipe	PPR 32 DN, 4m	6000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
103.	PPR Pipe	PPR 40 DN, 4m	8000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
104.	PPR Pipe	PPR 50 DN, 4m	15000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
105.	PPR Pipe	PPR 63 DN, 4m	18000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
106.	PPR Pipe	PPR 75 DN, 4m	25000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
107.	PPR Pipe	PPR 100 DN, 4m	80000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
108.	Pipe	PVC 50mm diameter	6000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
109.	Pipe	PVC 63 mm diameter	8500	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
110.	Pipe	PVC 75 mm diameter	9000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
111.	Pipe	PVC 90mm diameter	11000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
112.	Pipe	PVC 110mm diameter	14000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
113.	Plastic pipe	Ganga 3/4inch	7000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
114.	Plastic pipe	Ganga ½ inch	5000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
115.	Plastic pipe	Ganga 1inch	9000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
116.	Plastic pipe	Ganga 2inch	12500	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
117.	Galvanised pipe	2 inch	70,000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
118.	Galvanised pipe	1 inch	35000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
119.	Galvanised pipe	3/4 inch	25000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
120.	Galvanised pipe	1/2 inch	20,000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
121.	Hose pipe	¾ inch, 50 m	50,000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
122.	Flexible pipes	1/2 inch (Plastic), 60 Cm	5000	20	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
123.	Ventilation pipe	PVC 110 DN	5000	8	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
124.	Union adapter	25 DN PPR male Threaded socket	5000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
125.	Union adapter	25 DN PPR female Threaded socket	5000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
126.	Union adapter	20 DN PPR male Threaded socket	3500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
127.	Union adapter	20 DN PPR female Threaded socket	3500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
128.	Galvanised Union	½ inch	2000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
129.	Galvanised Union	¾ inch	3000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
130.	Galvanised Union	1inch	5000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
131.	Galvanised Union	2 inch	9000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
132.	Union	20 DN PPR	1500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
133.	Union	25 DN PPR	2500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
134.	Crossing	½ inch galvanized	4000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
135.	Crossing	¾ inch galvanized	6000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
136.	Crossing	1 inch galvanized	10,000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
137.	Crossing	20 DN PPR	2000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
138.	Crossing	25 DN PPR	3500	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
139.	Crossing	32 DN PPR	8000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
140.	Crossing	40 DN PPR	15000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
141.	Crossover	20 DN PPR	1500	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
142.	Crossover	25 DN PPR	3000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
143.	Crossover	32 DN PPR	5000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
144.	Crossover	40 DN PPR	7000	25	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
145.	Tank adapter	½ inch	3000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
146.	Tank adapter	¾ inch	5000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
147.	Tank adapter	1 inch	7000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
148.	Tank adapter	2 inch	10000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
149.	Poly bush	½ inch	1000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
150.	Poly bush	¾ inch	2000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
151.	Poly bush	1 inch	3000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
152.	Nipple galvanized	½ inch	700	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
153.	Nipple galvanized	¾ inch	1000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
154.	Nipple galvanized	1 inch	2000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
155.	Nipple galvanized	1 ¼ inch	4000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
156.	Nipple galvanized	1 ½ inch	6000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
157.	Nipple galvanized	2 inch	7000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
158.	Non-return valve	½ inch dia	5000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
159.	Non-return valve	¾ inch dia	8000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
160.	Non-return valve	1 inch dia	12000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
161.	Non-return valve	2 inch dia	20000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
162.	Ball valve	½ inch dia	5000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
163.	Ball valve	¾ inch dia	8000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
164.	Ball valve	1 inch dia	10000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
165.	Ball valve	2 inch dia	15000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
166.	Floating valve	½ inch dia	5000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
167.	Floating valve	¾ inch dia	10000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
168.	Gate valve	¾ inch GI	5000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
169.	Gate valve	1/2 GI	4000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
170.	Gate valve	1 inch GI	8000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
171.	Pressure reducer valve	¾ inch GI	40000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
172.	Pressure reducer valve	1 inch GI	60,000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
173.	Angle valve	½ inch	4000	10	Workshop	PLTHD301 PLTPF301 PLTPW301 PLTWSA301 PLTWS301
174.	Angle valve	3/4 inch	7000	10	Workshop	PLTHD301 PLTPF301 PLTPW301

						PLTWSA301 PLTWS301
175.	Push button for sink	½ inch	15000		Workshop	PLTPF301 PLTPW301 PLTWSA301
176.	Push button for basin	3/4 inch	22000	5	Workshop	PLTPF301 PLTPW301 PLTWSA301
177.	Push button for urinals	½ inch	15000	5	Workshop	PLTPF301 PLTPW301 PLTWSA301
178.	Mechanism WC complete	Push button/ ceramic /European WC (Seating position)	25000	5	Workshop	PLTPF301 PLTPW301 PLTWSA301
179.	Mechanism WC complete	Pull cable/ceramic /Indian WC (squatting position)	15000	5	Workshop	PLTPF301 PLTPW301

						PLTWSA301
180.	shower head	standard	10000	5	Workshop	PLTPF301 PLTPW301 PLTWSA301
181.	Shower flexible pipe	standard	7000	10	Workshop	PLTPF301 PLTPW301 PLTWSA301
182.	Shower mixer tap	standard	50,000	5	Workshop	PLTPF301 PLTPW301 PLTWSA301
183.	Urinals complete	ceramic	80,000	5	Workshop	PLTPF301 PLTPW301 PLTWSA301
184.	Hand wash basin complete	ceramic	100,000	5	Workshop	PLTPF301

						PLTPW301 PLTWSA301
185.	Electrical Water heater	Tankless	180000	2	Workshop	PLTPF301 PLTPW301 PLTWSA301 PLTWS301
186.	Solar Water Heater	Water heater type: FPC, Red &white color, Below 300Ltr, body material ABS Plastic in put voltage 220-250v.collector dimensions: width 450mm, height 787mm	1,500,000	1	Workshop	PLTPF301 PLTPW301 PLTWSA301 PLTWS301
187.	Wall plug	Box of 10mm	5000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
188.	Wall plug	Box of 6mm	3000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
189.	Wall plug	Box of 8 mm	4000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

190.	Pipe clamp PVC (PIPE CLIP)	10-110 mm dia	1500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
191.	Stainless steel pipe clamp	10-110 mm dia	5000	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
192.	Pipe Clip and ties	10-110 mm dia	1500	50	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
193.	Kitchen sink complete	aluminum	70,000	5	Workshop	PLTPF301 PLTPW301 PLTWSA301
194.	Bathtub complete	Enameled steel	200,000	2	Workshop	PLTPF301 PLTPW301 PLTWSA301
195.	Bidet complete	Pedestal type	100,000	2	Workshop	PLTPF301 PLTPW301 PLTWSA301
196.	Silicon	BLACK OR WHITE	5000	10	Workshop	PLTPF301 PLTPW301 PLTWSA301 PLTWS301

197.	Tangite glue	Special Adhesive, 1Kg	12000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
198.	Tefron	standard	500	2000	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
199.	Flexible wire steel (file de fer)	1.5mm dia , 1 kgl	3000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

200.	Flexible wire steel (file de fer)	5mm dia 1 kgl	3000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301
201.	Water meter	standard	50,000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWS301
202.	Small tank	Plastic 5000 litle	400,000	2	Workshop	PLTHD301 PLTPF301 PLTPW301 PLTWSA301 PLTWS301
203.	Centrifugal pump	Multistage pump with head of 10m	300,000	1	Workshop	PLTHD301 PLTPF301

						PLTPW301 PLTWSA301 PLTWS301
204.	Tile	For wall (25*40)cm with thickness of 6mm, per m^2	5000	200 m^2	Workshop	PLTPF301 PLTPW301 PLTWSA301 PLTWS301
205.	Tile	For wall (30*30)cm with thickness of 10mm per m^2	5000	200 m^2	Workshop	PLTPF301 PLTPW301 PLTWSA301 PLTWS301
206.	Tile	For floor (30*30)cm with thickness of 10mm per m^2	8500	200 m^2	Workshop	PLTPF301 PLTPW301 PLTWSA301 PLTWS301

207.	Plywood	120cm*240cm	8000	10	Workshop	PLTHD301 PLTPF301 PLTPW301 PLTWSA301 PLTWS301
208.	Timber (eucalyptus)	Madrille 4m*15cm*7cm	7000	15	Workshop	PLTHD301 PLTPF301 PLTPW301 PLTWSA301 PLTWS301
209.	Timber (eucalyptus)	Planche 4m*15cm*4.5cm	3000	25	Workshop	PLTHD301 PLTPF301 PLTPW301 PLTWSA301 PLTWS301
210.	Gravel	Granite 4-6cm, $5m^3$	120000	5 m^3	Workshop	PLTHD301

						PLTPF301 PLTPW301 PLTWSA301 PLTWS301
211.	Cement	32.5 Pma	14000	15	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
212.	Brick	Clay /9mm*10mm*20mm	60	4000	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

213.	Sand	Medium size , 5m^3	100,000	5 m^3	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
214.	Nails	6mm,8mm,10mm,12mm and 15mm	3000	10kg	Workshop	PLTHD301 PLTPF301 PLTPW301 PLTWSA301 PLTWS301
215.	Steel bar (fer a bateaux)	6mm,8mm,12mm	13000	10	Workshop	PLTHD301 PLTPF301 PLTPW301 PLTWSA301 PLTWS301

216.	Single core cable	1.5mm Red Alpha Cable	40000	4	Workshop	PLTBE301
217.	Single core cable	1.5mm2 Black Alpha Cable	40000	4	Workshop	PLTBE301
218.	Single core cable	1.5mm Blue Alpha Cable	40000	4	Workshop	PLTBE301
219.	Single core cable	2.5mm2 Red Alpha Cable	50000	4	Workshop	PLTBE301
220.	Insulator tape	Teflon 10 Yards Self Adhesive PVC Electrical Insulation Tape Pack (Black, 0.125 X18 mm)	500	200	Workshop	PLTBE301
221.	Welding electrode	Box of 2.5 kgl	10000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

222.	Metal tube	20mm*20mm	8000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
223.	Metal tube	20mm*30mm	11000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
224.	Metal tube	30mm*30mm	11000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301

						PLTWS301
225.	Metal tube	40mm*40mm	15000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
226.	Metal tube	30mm*40mm	15000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
227.	Metal tube	40mm*60mm	23000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301

						PLTPW301 PLTWSA301 PLTWS301
228.	Corrugated metal sheet (galvanized)	90cm*300cm*1.5mm	30000	5	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
229.	Mixer tap	1/2 inch	40,000	10	Workshop	PLTPF301 PLTWSA301
230.	Tap	PL Bib Tap -Ball Type 1/2" Valve Red Handle	6000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301PLT PW301 PLTWSA301

						PLTWS301
231.	Tap	PL Bib Tap -Ball Type 3/4" Valve Red Handle	5000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
232.	Tap	3/4 inch plastic	7000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
233.	P trap	PVC, 110 dia	10000	10	Workshop	PLTHD301 PLTPF301 PLTPJ301

						PLTPW301 PLTWSA301 PLTWS301
234.	S trap	PVC	8000	10	Workshop	PLTHD301 PLTPF301 PLTPW301 PLTWSA301
235.	Bottle trap	PVC	6000	10	Workshop	PLTPF301 PLTPW301 PLTWSA301
236.	Shower trey	standard	60000	5	Workshop	PLTPF301 PLTPW301 PLTWSA301
237.	Mirror	80*80/80*60 cm	25000	5	Workshop	PLTPF301 PLTPW301

						PLTWSA301
238.	Soap dish	standard	2000	10	Workshop	PLTPF301 PLTPW301 PLTWSA301
239.	Paper Holder	standard	2000	10	Workshop	PLTPF301 PLTPW301 PLTWSA301
240.	TOWEL HOLDER	standard	10000	5	Workshop/ stock	PLTPF301 PLTPW301 PLTWSA301
241.	Liquid Soap dish	standard	15000	5	Workshop/ stock	PLTPF301 PLTPW301 PLTWSA301

1. Training facilities

2.1. Furniture and office materials

SN	Name and description	Specification	Unity price	Quantity	Type of room	Module Code
1	Laptop and its accessoires	• Model No. 001 • Processor Type: Intel Atom • RAM Capacity: ≥4GB • Hard Disk Capacity: 500GB • Graphics Card: Integrated Graphics Card • Processor Brand: intel • Widescreen: Widescreen • Built-in Bluetooth: Built-in Bluetooth • Fingerprint: Without Fingerprint • Laptops: Light and Ultra-Slim Laptops • ROM: > 256G	586,500	3	Office room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

2	Desktop & its accessories	• Model No. K-21.504 • Memory Type: DDR3 • Use: Home/Commercial/Game • CPU Frequency: 2.5-3.0GHz • Keywords: All in One PC • Colour: Black • Interface Type: HDMI, VGA, USB • Display Ratio: 16:9 • Processor Series: Intel Core I7 • Memory: >4G • Hard Disk: SSD 500 GB • Display Resolution: 1920X1080 Power: 100-240V AC 50/60Hz • Output: 12V DC 6A 60W • Dimension: 60*15*45 • Trademark: Kuai	395,373	3	Office room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
3	File	• Type: Display Book • Material: Plastic • Type Document Bag: Multiply	2500	60	Office room	PLTHD301 PLTPF301 PLTPJ301

		• Size: A4 • Feature: Label • Usage: Data Book • Model No. 5005 • Colour: Assorted • Lock: Without Lock • Zipper: Without Zipper • Material: Plastic • Thickness: 0.6/0.03mm				PLTPW301 PLTWSA301 PLTWS301
4	Printer	• Model no. all in one copier, printer and fax-0350 • Function: print, copy, scan and fax • Without network printing • Max printable size: A4 • Laser type.	700,000	2	Office room	
5	Paper	• Material: 100% wood pulp • Size: A4, • Letter size(8.5"x11"), • Legal size(8.5"x14")	6500	20	Office room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

		• Whiteness: 98-100% • Packing: 500 sheets per ream				PLTWSA301 PLTWS301
6	Office table	• Usage: office room/ • Material: MDF • Color: woody • Style: Modern • Folded: Unfolded • Size: 1200W*600d*750hmm • Drawers: 3 Drawers •	600,000	6	Office room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
7	Chair	• Model no. HY-128B • Rotary • Material: Genuine leather • Modern style • Dimension: 78*32*58 cm	95,900	12	Office room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

8	Power strip(multprise)	• Mode no. SR 530 • Color: White • Cable length: 2 m • Hole digits: 6 • Material: PC+ABS • Dimension: 370*70.5*43mm	12000	12	Office room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
9	Documents Shelf cupboard	• Mode no. SZ-FC017 • Condition: New • Wood style: woody • Material: wood • Door: 2 • Length and width:	418,250	7	Office room	
10	Pen	• Mark: Bic • Colour: blue and red • Material: Plastic • Inner box: 50 pcs	10000	5 boxes	Office room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

11	Pencil	• Body material: wood • Body colour: multiple • Lead diameter: 2.65mm • Dimension: 7 inches.	150	25 pcs	Office room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
12	Marker	• Color: Multi colour • Hardness: Medium soft • Ink type: Dry Erase • Point diameter: 4.5 mm • Size: normal • Material: Plastic(polypropylene) • Dimension: 142*15mm	300	5 boxes	Office room Class room Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
13	A4 paper padded envelope	• material: Rigid paper • Seal bag • Moisture proof • Bio-degradable • Disposable • Shock resistance	50	100 pcs	Office room Workshop	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

		• Thickness: 2.5-4mm • - Color: Gold				

1. Didactic materials

S/N	Name and description	Specifications	Unit price	Quantity	Type of room	Module code
1	Posters	• Size: 40x60cm • Poster for ruminant slaughtering	30.000	3	Workshop Class room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
2	Posters	• Size: 40x60cm • Poster for cheese making	30.000	30	Workshop Class room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

3	Posters	• Size: 40x60cm • Poster for meatball making	30.000	30	Workshop Class room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
4	Posters	• Size: 40x60cm • Poster for smoked sausage making	30.000	30	Workshop Class room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
9	Posters	• Size: 40x60cm • Poster for milk collection	30.000	30	Workshop Class room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

10	Animated video	• Animated video for ruminant slaughtering	100,000	1	Class room	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

2. Audio-visual materials

No	Name and description	Specifications	Price/Unit	Quantity	Type of room	Module code
1	**Flat Screen**	• Screen size: 28.2 inches • Flat / Curved: Flat • Resolution: 3840 x 2560 • Refresh rate: 60 Hz • Resolution type: 4K+ Ultra-HD • Aspect ratio: 3:2 • Multimedia Microphone, Speaker quantity, Speaker power	930, 000	1	Classroom	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
2	**Projector**	• Brightness 3,600 ANSI Lumens	700,000	1	Classroom	PLTHD301

		• Resolution 800x600 • Aspect Ratio 4:3 (SVGA) • Contrast 20,000:1 (full on/off) • Display Type DLP x 1 • Color Processing 10-bit • Video Modes 720p, 1080i, 1080p/60, 1080p/24, 1080p/50, 576i, 576p, 480p, 480i • Data Modes MAX 1920x1200 • Lamp Life 4,000 hours / 10,000 hours (Eco) • Lamp Model MC. JPV11.001 • Digital Zoom Yes • Power 240 Watts 100V - 240V • Size 11 cm x 31 cm x 24 cm				PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301
3	**Projector board screen**	• Length: 2m • Height: 1.5m • Colour: white	300,000	1	Classroom	PLTHD301 PLTPF301 PLTPJ301 PLTPW301

						PLTWSA301 PLTWS301
4	**Laptop**	• 6200U CPU @ 2.30GHz 2.40 GHz • Installed RAM:8.00 GB (7.89 GB usable) • System type: 64-bit operating system, x64-based processor • RAM: 500 GB	700,000	10	Classroom	PLTHD301 PLTPF301 PLTPJ301 PLTPW301 PLTWSA301 PLTWS301

2.4. Infrastructures

This level will need one kind of the workshop that will have one class, practical room, one trainer office, toilets for trainees and trainer, consumables store and tools store.

The illustration bellow shows each workshop and its components:

PLAN VIEW FOR PLUMBING WORKSHOP

