

Sr. No.	Description	Qty. Required
1.	Universal Indicating controller (Model SDC36 (C36TCCUA2400), SLP-C35 standard loader for the SDC36 with loader cable, software (SLP-C35J50) Input Universal, Output: 4~20ma (Re-Transmission), Size 96*96, Make: Azbil Japan or equivalent.	8 Nos.
2.	Level Transmitter with integral display, Type: Guided wave radar, probe type: Solid Rod, Probe Dia:16mm, Measuring length: 500~2000 mm (Adjustable), output: 4~20 mA Hart, operation: 4-line display, process connection: 300 lb Flanged, Housing: SS316, Temp: 196~280°C, Pressure: 150 bar, IP-68, Supply voltage: 12~24 VDC, Make: USA/Europe or equivalent.	2 Nos.
3.	Level Transmitter (Magnetic float type) Material: Stainless steel PFA coated, Process connection: Flange Type, Guide tube Dia: 17 mm, Measuring length: 1300mm (Zero/Span adjustment), Float: PFA coated ball type, Float ID: 23mm, Float OD: 75 mm, Specific Gravity: 900kg/m ³ , Design pressure: 6 Bar, temperature: 150°C, Protection class: IP68, Mounting Position: vertical, Output: 4~20 mA with hart programmable, supply voltage: 12-36 VDC, Make: USA/Europe or equivalent.	4 Nos.
4.	Magnetic Float: PFA Coated ball type, Material: SS with PFA coated, Float ID: 23 mm, Float OD: 80mm, Height: 75 mm, Specific gravity: 900kg/M ³ , Design pressure: (-1 to 25) bar, Temperature: (-100 to 250°C) Protection class: IP68, Impression depth: As per standard with specific gravity i.e. 900kg/M3, Make: USA/Europe or equivalent.	4 Nos.
5.	Paperless recorder (6 Channel), No of analog inputs: 6 No of digital inputs:6, No of alarms output:6, Input type: Universal, Output: relays & retransmission, Data Display: Digital/bar graphs/curve, interface: USB for instrument data export, power supply: 220 VAC, Communication : RS485 with basic software and RS485 connecting cable, Display: TFT color LCD, Language: English, Make: Honeywell/Yamatake/ ABB Or equivalent.	3 Nos.
6.	Ultraviolet sensing tube for photo sensor C7012A/C, Part No: 113228, Make: Honeywell Or equivalent.	6 Nos.
7.	Flame Detector Relay for use with rectification type flame detectors (C 7012 A/C/G), 2-isolated DPDT contacts, Model: R4343 D, Supply: 220 VAC, Make: Honeywell Or equivalent.	4 Nos.
8.	PT-100 temperature sensor (3 wires), process connection: ½" NPT, connection head: IP68 (Ex-Proof) Accuracy class A, stem length: 12", Sheath dia: 6mm, Sheath Material: SS316, Measuring Range: -20~200°C, Make: Germany/Japan/USA or equivalent.	10 Nos.
9.	Pt-100 Temperature sensor (3 wires type) process connection: ½" NPT, Connection head: IP68 (EX-Proof) Accuracy Class A, Stem length: 24", Sheath Dia: 8 mm, Sheath Material: SS316, Measuring Range: -20~200°C, Make: Germany/ Japan/USA or equivalent.	6 Nos.

10.	Temperature Gauge (0~100°C), Capillary Length: 3 meter, Dial Case: DN100, Sensing Bulb dia: 10mm, Bulb Housing tube length (stem): 8 inches, Material: SS316, Make: Wise, Fentali, etc or equivalent.	6 Nos.
11.	Pressure Gauge (Diaphragm seal type), Range: 0~6 bar, accuracy: 1%, process connection: Bottom, wetted parts: SS316, Process connection: ½" NPT, Medium Temp: 0~150°C, dial size: 4 Inch, Make: Europe/ USA or equivalent.	6 Nos.
12.	Pressure Gauge (Diaphragm seal type), Range: 0~10 bar, wetted parts: SS316, process connection: ½" NPT, dial size: 4 Inch, Make: Europe/ USA or equivalent.	6 Nos.
13.	Pressure Gauge (Diaphragm seal type), Range: 0~1000 mmWs, wetted parts: SS316, process connection: ½" NPT, dial size: 6 Inch, Make: Europe/ USA or equivalent.	6 Nos.
14.	Pressure Gauge (Diaphragm seal type), Range: 0~2500 mmWs, wetted parts: SS316, process connection: ½" NPT, dial size: 6 Inch, Make: Wise, Wika, Fentali or equivalent.	6 Nos.
15.	Pressure Gauge (Diaphragm seal type), Range: 0~5000 mmWs, wetted parts: SS316, process connection: ½" NPT, dial size: 6 Inch, Make: Wise, Wika, Fentali or equivalent.	6 Nos.
16.	Vacuum Gauge (Diaphragm Seal Type), Range: 0~760 mmHg, wetted parts: SS316, process connection: ½" NPT, Dial size: 6 inch, Make: Europe/ USA or equivalent.	6 Nos.
17.	Conductivity Probe, Model: 04905-X01-55-333-20-910-S10-000, Measuring Range: 0-500 uS/cm, Make: Honeywell/ equivalent.	2 Nos.
18.	PH Electrode, Model: PH435CD for PH Transmitter, Make: FIP Italy or equivalent.	2 Nos.
19.	Panel mounted selector switch (12-Channel) for K-type thermocouple, internally wired with thermocouple compensating cable, input: 12 (K-type), Output: 1 (K-Type), 1 meter K-type fixed lead, input connection: Via barrier terminal strip, panel cut out: 45*92mm, body robust aluminum construction.	4 Nos.
20.	Panel mounted selector switch (6- Channel) for 3 wire pt-100, input connection: via barrier terminal strip, Output: 1 meter PVC insulated four/three wire tail, input selection: Multiple rotary switch, panel cut out: 45*92 mm.	4 Nos.
21.	Solenoid Valve, Size: 2", Mag.Nr.35-1, Art Nr. 140400, IP54, Volt: 230 VAC, 90 VA, Make: DUNGS or equivalent.	1 No.
22.	Pressuretrol Controllers, Model: L91B proportioning, Operating range: 5~150 Psi, maximum surge pressure: 225 Psi, potentiometer resistance: 140 Ohms Make: Honeywell or equivalent.	2 Nos.
23.	Temperature Transmitter (head mounted), sensor type: PT100, 3- wire, Range: -10°C ~ 500°C, Sensor connection: Screw Type, Measurement accuracy: 0.1°C ± 0.05 % of reading, Lead wire resistance effect 0.002°C/Ω, output type: 2- wire 4~20 mA,	6 Nos.

	output connection: Screw type, response time: 1 sec, power supply: 24VDC, Ambient operating range: -40°C to 85°C	
24.	Single converter (panel Mounted), No of input: 1, No of output: 2 (4~20 mA), Input: Universal (Pt100, TC, resistance, 1~5 VDC HART selectable), Output type: 2-wire 4 ~20 mA (HART), Supply: 24 VDC, Make: ABB/ Siemens/Rosemount/Wika or equivalent.	20 Nos.
25.	Program controller for burner, Model: LFL1333RL Series -2, Make: Siemens or equivalent.	1 No.
26.	Photo cell tube, Model: QRA 2M, Make: Siemens or equivalent.	3 Nos.
27.	Flame detector Relay, Model: LFE10 Series 02, Volt: 220-240 VAC, Make: Landis & GYR or equivalent.	2 Nos.
28.	Cable Ferrule printing machine portable, printing method: Thermal transfer, Input Modes: Alphanumeric, Symbol Input, PC interface: complete PC connection kit with printing machine, print media options: PVC tube with tube attachment Dia: 2mm-5mm, Heat Shrink tube with tube attachment: Size: 2:1 shrinkage dia 3.2 mm-6.4mm, Label tape cassette white width 6mm, storage: built in memory for saving files, Make: Cannon/ Brady/ equivalent.	1 No.
29.	Label tape width: 6 mm* Length: 50ft, color: White, Material: Vinyl, Printing Technique: Thermal transfer, Label properties: Adhesive, Make: Cannon/Brady/ equivalent.	3 Roll@50ft.

Detailed Specifications of the items as per purchase indent

1. Universal Indicating Controller

Qty. 08

Make: Azbil Japan
 Model: SDC36 (C36TCCUA2400)] or equivalent.
 Input: Universal
 Output: 4~20 mA & retransmission Current
 Size: 96x96mm
 No of digital inputs/outputs: 2 each
 Power supply: 165~285 Vac, 50Hz

2. Guided Wave Radar Type Level Transmitter

Qty.02

Active Probe Measuring Length: 500~2000mm (Adjustable)
 Output: 4~20 mA, HART + 4- line Display
 Supply Voltage: 12~36 VDC
 Probe Type: Solid Rod
 Probe Dia: 16mm
 Pressure: 150 Bar
 Temperature: -196~280°C
 Display & parameter settings: Digital & Key pad
 Process Connection: Flanged
 Degree of protection: IP68
 Make: USA/Europe or equivalent.

3. Magnetic Float Type Stainless Steel PFA Coated Level Transmitter**Qty.04**

Active Probe Measuring Length:	1300mm (Zero / Span Adjustable)
Output:	4~20 mA, HART
Supply Voltage:	12~36 VDC
Probe Type/Make:	Stainless Steel PFA coated
Guide Tube Dia:	17 mm
Mounting Position:	Vertical
Flat Type:	PFA coated ball type
Float ID/OD:	23/75 mm
Specific Gravity:	900 Kg/M ³
Pressure:	6 Bar
Temperature:	150°C
Parameter Settings:	Key pad
Process Connection:	Flanged
Degree of protection:	IP68
Make:	USA/Europe or equivalent.

4. Magnetic Float Ball Type PFA Coated**Qty.04**

Material:	PFA coated with Ball type
Float ID/OD:	23/80 mm
Float Height:	75 mm
Specific Gravity:	900 Kg/M ³
Pressure:	-1 to 25 bar
Temperature:	-100 to 150°C
Degree of Protection:	IP68
Impression Depth:	As per standard with specific gravity i.e 900 kg/M ³
Make:	USA/Europe or equivalent.

5. Paperless Recorder (6 Channel)**Qty. 03**

Number of Analog Input:	06
Number of Digital Input:	06
Number of alarms:	06
Input Type:	Universal
Output:	Relays and Retransmission
Display:	Digital/bar, graph/curve (TFT color LCD)
Interface:	USB for instrument data export
Communication:	RS485 with basic software and connecting cable
Language:	English
Power Supply:	220 VAC
Make:	Honeywell/ Yamatake/ABB or equivalent.

6. Ultraviolet Sensing Tube for photo sensor C7012A/C Qty.06

Part No: 113228
Make: Honeywell or equivalent.

7. Flame Detector Relay with rectification type Flame Detectors (C7012 A/C/G) Qty.04

Contacts Type: 2-Isolated DPDT
Model: R4343D
Supply: 220 VAC
Make: Honeywell or equivalent.

8. Pt-100 Temperature Sensor (3 wire) Qty.10

Process Connection: ½" NPT
Connection head: IP68 (Ex-Proof)
Accuracy Class: A
Stem Length: 12"
Sheath dia: 6 mm
Sheath Material: SS 316
Measuring Range: -20~200°C
Make: Germany /Japan/USA or equivalent.

9. Pt-100 Temperature Sensor (3 wire) Qty.06

Process Connection: ½" NPT
Connection head: IP68 (Ex-Proof)
Accuracy Class: A
Stem Length: 24"
Sheath dia: 8 mm
Sheath Material: SS 316
Measuring Range: -20~200°C
Make: Germany /Japan/USA or equivalent.

10. Temperature Gauge (0~100°C) Qty.06

Capillary Length: 3 meter
Dial Case: DN100
Sensing Bulb dia: 10 mm
Bulb housing tube length (Stem): 8 inches
Material: SS316
Make: Wise, Fentali etc or equivalent.

11. Pressure Gauge (Diaphragm Seal Type)**Qty. 06**

Range: 0~6 Bar
Accuracy 1%
Process Connection: Bottom
Wetted Parts: SS316
Process Connection: ½" NPT
Medium Temp: 0~150°C
Dial Size: 4 inch
Make: Europe/ USA or equivalent.

12. Pressure Gauge (Diaphragm Seal Type)**Qty. 06**

Range: 0~10 Bar
Accuracy 1%
Process Connection: Bottom
Wetted Parts: SS316
Process Connection: ½" NPT
Medium Temp: 0~150°C
Dial Size: 4 inch
Make: Europe/ USA or equivalent.

13. Pressure Gauge (Diaphragm Seal Type)**Qty. 06**

Range: 0~1000 mm Ws
Accuracy 1%
Process Connection: Bottom
Wetted Parts: SS316
Process Connection: ½" NPT
Medium Temp: 0~150°C
Dial Size: 6 inch
Make: Europe/ USA or equivalent.

14. Pressure Gauge (Diaphragm Seal Type)**Qty. 06**

Range: 0~2500 mm Ws
Accuracy 1%
Process Connection: Bottom
Wetted Parts: SS316
Process Connection: ½" NPT
Medium Temp: 0~150°C
Dial Size: 6 inch
Make: Europe/ USA or equivalent.

15. Pressure Gauge (Diaphragm Seal Type)**Qty. 06**

Range: 0~5000 mm Ws
Accuracy 1%
Process Connection: Bottom
Wetted Parts: SS316
Process Connection: ½" NPT
Medium Temp: 0~150°C
Dial Size: 6 inch
Make: Europe/ USA or equivalent.

16. Vacuum Gauge (Diaphragm Seal Type)**Qty. 06**

Range: 0~5000 mm Ws
Accuracy 1%
Process Connection: Bottom
Wetted Parts: SS316
Process Connection: ½" NPT
Medium Temp: 0~150°C
Dial Size: 6 inch
Make: Europe/ USA or equivalent.

17. Conductivity Probe**Qty. 02**

Model: 04905-X01-55-333-20-910-S10-000
Measuring Range: 0-500 uS/cm
Make: Honeywell (Equivalent not acceptable)

18. PH Electrode**Qty. 02**

Model: PH435CD For PH Transmitter
Make: FIP Italy or equivalent.

19. Panel mounted Selector switch (12- Channel) for K-Type thermocouple**Qty.04**

Type: Internally wired with thermocouple compensating cable
Input: 12 (K-type)
Output: 1 (Ktype) with 1 meter K-type fixed lead
Input Connection: Via barrier terminal strip
Panel cut out: 45*92mm
Body: Robust aluminum construction

20. Panel mounted Selector switch (06- Channel) for 3-wire Pt-100**Qty.04**

Type: Internally wired with thermocouple compensating cable
Input Selection: Multiple rotary switch
Output: 1 Meter PVC insulated four/three wire tail
Input Connection: via barrier terminal strip
Panel cut out: 45*92mm

21. Solenoid Valve, Mag. Nr.35-1(Size: 2")**Qty.01**

Art Nr: 140400, IP54
Volt: 230 VAC, 90 VA
Make: Dungs or equivalent.

22. Pressuretrol Controllers**Qty.02**

Model: L91B Proportioning
Operating range: 5~150 Psi
Maximum surge pressure: 225 Psi
Potentiometer Resistance: 140 Ohms
Make: Honeywell or equivalent.

23. Temperature Transmitter (head mounted), Sensor type: Pt100 3-wire**Qty.06**

Range: -10°C~500°C
Sensor connection: screw type
Measurement Accuracy: 0.1°C± 0.05% of reading, lead wire resistance effect 0.002 ° C/Ω
Output type: 2-wire 4~20mA
Output Connection: screw type
Response time: 1 Sec
Power Supply: 24VDC
Ambient operating Range: -40°C to 85°C

24. Single Converter (Panel Mounted)**Qty.20**

No of Input: 1
No of Outputs: 2(4~20 mA)
Input: Universal (Pt100, TC, Resistance, 1~5 VDC HART Selectable)
Output Type: 2-wire 4 ~ 20 mA (HART)
Supply: 24VDC
Make: ABB/Siemens/Rosemount/Wika or equivalent.

25. Program Controller for burner**Qty.01**

Model: LFL1333RL Series-2
Make: Siemens

26. Photo Cell**Qty.03**

Model: QRA 2M
Make: Siemens or equivalent.

27. Flame Detector Relay**Qty.02**

Model: LFE10 Series 02
Volt: 220-240 VAC
Make: Landis & GYR or equivalent.

28. Cable Ferrule printing machine Portable**Qty.01**

Printing Method: Thermal Transfer
Input Modes: Alphanumeric, Symbol input
PC Interface: Complete PC connection kit with printing machine
Print Media options: -PVC tube with tube attachment Dia: 2mm-5mm
Heat shrink tube with tube attachment: Size: 2: 1
Shrinkage dia 3.2 mm -6.4 mm
Storage: Built in memory for saving files
Make: Cannon / Brady / or equivalent.

29. Roll of Label Tape**Qty.03**

Roll Size: Width: 6mm* length: 50 ft
Color: White
Material: Vinyl
Printing Technique: Thermal Transfer
Label Properties: Adhesive
Make: Cannon / Brady / or equivalent.