|  |  |
| --- | --- |
| **Replanning of the shooting range rooms (basement) and renovation of the sports hall with offices (Ground Floor) in the block letter "J" (cadastral no. 0100213.241.04) in the Republic of Moldova, Chisinau municipality, 21 Gh. Asachi str.** | Form No. 1 unfolded  WinСmeta |
| (name of the objective) |  |

**Bill of quantities for works No. 2-1-5**

**Systems Automation (12/25-J-AIVC)**

in current prices

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| №  crt. | Norm symbol and Resource code | Name of raw material, materials, fuel, energy resources | U.M. | Resource consumption: labor, materials and mechanisms | |
| Per unit of measurement | On the total volume |

| 1 | | | 2 | | 3 | | | 4 | | | 5 | | 6 | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1. Installation work** | | | | | | | | | | | | | | |
| **1.1. Machine automation** | | | | | | | | | | | | | | |
| **1** | | | **11-03-011-01** | | **Devices for analyzing the physico-chemical content of the substance: device, complexity category: I** | | | **set** | | |  | | **6,000** | |
|  | | | 1 | | Worker | | | mh | | | 4,490 | | 26,94 | |
|  | | | 1012037 | | Bolts with zinc-plated nuts and washers, diameter 8 mm | | | kg | | | 0,364 | | 2,184 | |
| **2** | | | **10-08-001-10** | | **Receiving devices: Receiving and object control devices for: 1 range** | | | **pcs** | | |  | | **2,000** | |
|  | | | 1 | | Worker | | | mh | | | 11,000 | | 22,00 | |
|  | | | 1011963 | | Pine rosin | | | kg | | | 0,0012 | | 0,002 | |
|  | | | 1012206 | | Plastic dowels, Screws 12х70 mm | | | 10 pcs | | | 0,300 | | 0,60 | |
|  | | | 5220076 | | Tin-lead alloys without antimony, brand "ПОС40" | | | kg | | | 0,012 | | 0,024 | |
|  | | | 330206 | | Electric drills | | | hr | | | 0,130 | | 0,26 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total Machine automation** | | |  | | | | | | |
| **1.2. SH automation cabinet (ОЗК)** | | | | | | | | | | | | | | |
| **3** | | | **08-03-572-4** | | **Cabinet-type control unit or distribution point (cabinet), wall-mounted, height and width, mm, up to 1200х1000** | | | **pcs** | | |  | | **1,000** | |
|  | | | 1 | | Worker | | | mh | | | 3,490 | | 3,49 | |
|  | | | 1011977 | | Bolts with nuts and washers | | | kg | | | 0,170 | | 0,17 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,030 | | 0,03 | |
| **4** | | | **08-03-526-1** | | **Single-, two-, three-pole circuit breaker, mounted on wall or column constructions, current up to 25 A** | | | **pcs** | | |  | | **3,000** | |
|  | | | 1 | | Worker | | | mh | | | 1,560 | | 4,68 | |
|  | | | 1011977 | | Bolts with nuts and washers | | | kg | | | 0,049 | | 0,147 | |
|  | | | 1019103 | | Spacer plugs | | | 100 pcs | | | 0,014 | | 0,042 | |
|  | | | 1019109 | | Connection plugs | | | 10 pcs | | | 1,220 | | 3,66 | |
|  | | | 1019760 | | Electrical insulation varnish "318" | | | kg | | | 0,006 | | 0,018 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,036 | | 0,108 | |
|  | | | 5009062 | | Cable lugs | | | pcs | | | 6,100 | | 18,30 | |
|  | | | 5009081 | | Flexible connection bridges, type "ПГС-50" | | | pcs | | | 1,000 | | 3,00 | |
|  | | | 5009500 | | Marking sheets | | | 100 pcs | | | 0,020 | | 0,06 | |
|  | | | 5429033 | | Technical grease | | | kg | | | 0,006 | | 0,018 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,012 | | 0,036 | |
|  | | | 330206 | | Electric drills | | | hr | | | 0,040 | | 0,12 | |
| **5** | | | **08-03-641-1** | | **Clip box, clip quantity, up to 24x24** | | | **pcs** | | |  | | **1,000** | |
|  | | | 1 | | Worker | | | mh | | | 20,900 | | 20,90 | |
|  | | | 1010090 | | Hexagon head screws, thread diameter 10 mm | | | t | | | 0,0018 | | 0,002 | |
|  | | | 1010122 | | Hexagonal head nuts, thread diameter 10 mm | | | t | | | 0,0006 | | 0,001 | |
|  | | | 1011963 | | Pine rosin | | | kg | | | 0,290 | | 0,29 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,020 | | 0,02 | |
|  | | | 1019928 | | Washer, diameter 8-12 mm | | | kg | | | 0,160 | | 0,16 | |
|  | | | 5009055 | | Copper cable lugs | | | pcs | | | 48,000 | | 48,00 | |
|  | | | 5009264 | | PVC pipe | | | kg | | | 0,170 | | 0,17 | |
|  | | | 5220076 | | Tin-lead alloys without antimony, brand "ПОС40" | | | kg | | | 0,430 | | 0,43 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,210 | | 0,21 | |
| **6** | | | **08-03-575-1** | | **Device: Rail** | | | **pcs** | | |  | | **1,000** | |
|  | | | 1 | | Worker | | | mh | | | 1,120 | | 1,12 | |
|  | | | 1011977 | | Bolts with nuts and washers | | | kg | | | 0,020 | | 0,02 | |
| **7** | | |  | | **Sina zero PEN 11-2362 6x9 mm 80 A 450V** | | | **pcs** | | |  | | **1,000** | |
|  | | | 6006 | | Sina zero PEN 11-2362 6x9 mm 80 A 450V | | | pcs | | | 1,000 | | 1,00 | |
| **8** | | | **10-08-003-03** | | **Devices: power supply and control unit** | | | **pcs** | | |  | | **1,000** | |
|  | | | 1 | | Worker | | | mh | | | 5,000 | | 5,00 | |
|  | | | 1011963 | | Pine rosin | | | kg | | | 0,0016 | | 0,002 | |
|  | | | 1012206 | | Plastic dowels, Screws 12х70 mm | | | 10 pcs | | | 0,300 | | 0,30 | |
|  | | | 5220076 | | Tin-lead alloys without antimony, brand "ПОС40" | | | kg | | | 0,016 | | 0,016 | |
|  | | | 330206 | | Electric drills | | | hr | | | 0,130 | | 0,13 | |
| **9** | | |  | | **2 mm connector on ETI ESC-CBC.2-10/PT ETI 003903010 or similar** | | | **pcs** | | |  | | **200,000** | |
|  | | | 60010 | | Connecting element 2 mm on ETI ESC-CBC.2-10/PT ETI 003903010 | | | pcs | | | 1,000 | | 200,00 | |
| **10** | | | **08-02-390-2** | | **Plastic channels with width: up to 63 mm.** | | | **100 m** | | |  | | **0,040** | |
|  | | | 1 | | Worker | | | mh | | | 18,390 | | 0,736 | |
|  | | | 101-1485 | | Round head screws 4х40 mm | | | kg | | | 1,000 | | 0,04 | |
|  | | | 101-2202 | | Polyethylene spacers 6х40 mm | | | pcs | | | 300,000 | | 12,00 | |
|  | | | 134041 | | Screwdriver | | | hr | | | 6,880 | | 0,275 | |
|  | | | 331451 | | Electric drills | | | hr | | | 6,880 | | 0,275 | |
| **11** | | |  | | **Cable channel 2000x40x60 mm perforated PVC on Scame R4060 or similar** | | | **m** | | |  | | **4,000** | |
|  | | | 6009 | | Cable channel 2000x40x60 mm perforated PVC on Scame R4060 | | | m | | | 1,000 | | 4,00 | |
| **12** | | | **08-01-081-1** | | **Control and signaling device (button, control key, electromagnetic lock, acoustic signal, signaling lamp), quantity of connected ends up to: 2** | | | **pcs** | | |  | | **35,000** | |
|  | | | 1 | | Worker | | | mh | | | 1,130 | | 39,55 | |
|  | | | 1011977 | | Bolts with nuts and washers | | | kg | | | 0,060 | | 2,10 | |
|  | | | 5009807 | | Marking head formations | | | 100 pcs | | | 0,020 | | 0,70 | |
| **13** | | | **08-03-532-4** | | **Control station with buttons, common purpose, mounted on wall or column construction, quantity of station elements up to 3** | | | **pcs** | | |  | | **6,000** | |
|  | | | 1 | | Worker | | | mh | | | 1,800 | | 10,80 | |
|  | | | 1011977 | | Bolts with nuts and washers | | | kg | | | 0,050 | | 0,30 | |
|  | | | 1019103 | | Spacer plugs | | | 100 pcs | | | 0,014 | | 0,084 | |
|  | | | 1019109 | | Connection plugs | | | 10 pcs | | | 1,220 | | 7,32 | |
|  | | | 1019760 | | Electrical insulation varnish "318" | | | kg | | | 0,006 | | 0,036 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,035 | | 0,21 | |
|  | | | 5009081 | | Flexible connection bridges, type "ПГС-50" | | | pcs | | | 1,000 | | 6,00 | |
|  | | | 5009500 | | Marking sheets | | | 100 pcs | | | 0,010 | | 0,06 | |
|  | | | 5009502 | | Extremity plugs | | | 100 pcs | | | 0,061 | | 0,366 | |
|  | | | 5429033 | | Technical grease | | | kg | | | 0,006 | | 0,036 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,012 | | 0,072 | |
|  | | | 330206 | | Electric drills | | | hr | | | 0,040 | | 0,24 | |
| **14** | | | **10-01-039-06** | | **Various parts: Relay, key, button and other, with mounting location preparation** | | | **pcs** | | |  | | **10,000** | |
|  | | | 1 | | Worker | | | mh | | | 2,000 | | 20,00 | |
| **15** | | | **08-02-412-1** | | **Insertion of conductors into laid pipes and hoses: total cross-section up to 2.5 mm2** | | | **100 m** | | |  | | **1,000** | |
|  | | | 1 | | Worker | | | mh | | | 5,610 | | 5,61 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,020 | | 0,02 | |
|  | | | 5009041 | | Clamping device - branching | | | 100 pcs | | | 0,310 | | 0,31 | |
|  | | | 5009056 | | Insulation caps | | | 10 pcs | | | 0,800 | | 0,80 | |
|  | | | 5009061 | | Insulation sheet | | | pcs | | | 12,200 | | 12,20 | |
|  | | | 5009140 | | Connection plugs | | | 100 pcs | | | 0,050 | | 0,05 | |
|  | | | 5009500 | | Marking sheets | | | 100 pcs | | | 0,020 | | 0,02 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,160 | | 0,16 | |
| **16** | | |  | | **Electrical wire H07V-K 1\*1.5 blue multi-core copper** | | | **m** | | |  | | **50,000** | |
|  | | | 60017 | | Electrical wire H07V-K 1\*1.5 blue multi-wire copper | | | m | | | 1,000 | | 50,00 | |
| **17** | | |  | | **Electric wire H07V-U 1\*1.5 blue single-core copper** | | | **m** | | |  | | **50,000** | |
|  | | | 60018 | | Electric wire H07V-U 1\*1.5 blue single-core copper | | | m | | | 1,000 | | 50,00 | |
| **18** | | | **10-04-066-05** | | **Wall switch: Sirena** | | | **pcs** | | |  | | **1,000** | |
|  | | | 1 | | Worker | | | mh | | | 1,000 | | 1,00 | |
|  | | | 5220076 | | Tin-lead alloys without antimony, brand "ПОС40" | | | kg | | | 0,004 | | 0,004 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,002 | | 0,002 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total SH automation cabinet (ОЗК)** | | |  | | | | | | |
| **1.3. Cables and wires (External connections)** | | | | | | | | | | | | | | |
| **19** | | | **08-02-412-2** | | **Insertion of conductors into laid pipes and hoses: total cross-section up to 6 mm2** | | | **100 m** | | |  | | **7,000** | |
|  | | | 1 | | Worker | | | mh | | | 6,740 | | 47,18 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,020 | | 0,14 | |
|  | | | 5009041 | | Clamping device - branching | | | 100 pcs | | | 0,310 | | 2,17 | |
|  | | | 5009056 | | Insulation caps | | | 10 pcs | | | 0,800 | | 5,60 | |
|  | | | 5009061 | | Insulation sheet | | | pcs | | | 12,200 | | 85,40 | |
|  | | | 5009140 | | Connection plugs | | | 100 pcs | | | 0,050 | | 0,35 | |
|  | | | 5009500 | | Marking sheets | | | 100 pcs | | | 0,020 | | 0,14 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,160 | | 1,12 | |
| **20** | | |  | | **Cable COR 4x0.22 mm** | | | **m** | | |  | | **40,000** | |
|  | | | 600COR-4x0.22 | | Wire COR 4x0.22 mm | | | m | | | 1,000 | | 40,00 | |
| **21** | | |  | | **UTP cable cat. 5e** | | | **m** | | |  | | **70,000** | |
|  | | | 600UTP-5e | | UTP cable cat. 5e | | | m | | | 1,000 | | 70,00 | |
| **22** | | |  | | **For electric SVVP 2x1.0 mm2** | | | **m** | | |  | | **100,000** | |
|  | | | 600SVVP-2x1.0 | | For electric SVVP 2x1.0 mm2 | | | m | | | 1,000 | | 100,00 | |
| **23** | | |  | | **Electric wire PVS 3x1.5 mm2** | | | **m** | | |  | | **120,000** | |
|  | | | 600PVS-3x1.5 | | Electric wire PVS 3x1.5 mm2 | | | m | | | 1,000 | | 120,00 | |
| **24** | | |  | | **Fire resistant cable JE-H(St)H FE180/E3 1x2x1.0** | | | **m** | | |  | | **120,000** | |
|  | | | 60035 | | Fire resistant cable JE-H(St)H FE180/E3 1x2x1.0 | | | m | | | 1,000 | | 120,00 | |
| **25** | | |  | | **UTP cable cat. 5e** | | | **m** | | |  | | **150,000** | |
|  | | | 600UTP-5e | | UTP cable cat. 5e | | | m | | | 1,000 | | 150,00 | |
| **26** | | |  | | **Electric wire SVVP 2x1.0 mm2** | | | **m** | | |  | | **100,000** | |
|  | | | 600SVVP-2x1.0 | | Electric wire SVVP 2x1.0 mm2 | | | m | | | 1,000 | | 100,00 | |
| **27** | | | **08-02-412-3** | | **Insertion of conductors into laid pipes and hoses: total cross-section up to 16 mm2** | | | **100 m** | | |  | | **4,500** | |
|  | | | 1 | | Worker | | | mh | | | 7,860 | | 35,37 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,020 | | 0,09 | |
|  | | | 5009041 | | Clamping device - branching | | | 100 pcs | | | 0,310 | | 1,395 | |
|  | | | 5009056 | | Insulation caps | | | 10 pcs | | | 0,800 | | 3,60 | |
|  | | | 5009061 | | Insulation sheet | | | pcs | | | 12,200 | | 54,90 | |
|  | | | 5009140 | | Connection plugs | | | 100 pcs | | | 0,050 | | 0,225 | |
|  | | | 5009500 | | Marking sheets | | | 100 pcs | | | 0,020 | | 0,09 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,320 | | 1,44 | |
| **28** | | |  | | **Fire resistant cable FROH2R 7x1.5 mm** | | | **m** | | |  | | **350,000** | |
|  | | | 600FROH2R-7x1,5 | | Fire resistant cable FROH2R 7x1.5 mm | | | m | | | 1,000 | | 350,00 | |
| **29** | | |  | | **Fire resistant cable FROH2R 10x1.5 mm** | | | **m** | | |  | | **100,000** | |
|  | | | 600FROH2R-10x1.5 | | Fire resistant cable FROH2R 10x1.5 mm | | | m | | | 1,000 | | 100,00 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total Cables and wires (External connections)** | | |  | | | | | | |
| **1.4. Cables and wires (internal connections)** | | | | | | | | | | | | | | |
| **30** | | | **08-02-412-2** | | **Insertion of conductors into laid pipes and hoses: total cross-section up to 6 mm2** | | | **100 m** | | |  | | **3,700** | |
|  | | | 1 | | Worker | | | mh | | | 6,740 | | 24,938 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,020 | | 0,074 | |
|  | | | 5009041 | | Clamping device - branching | | | 100 pcs | | | 0,310 | | 1,147 | |
|  | | | 5009056 | | Insulation caps | | | 10 pcs | | | 0,800 | | 2,96 | |
|  | | | 5009061 | | Insulation sheet | | | pcs | | | 12,200 | | 45,14 | |
|  | | | 5009140 | | Connection plugs | | | 100 pcs | | | 0,050 | | 0,185 | |
|  | | | 5009500 | | Marking sheets | | | 100 pcs | | | 0,020 | | 0,074 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,160 | | 0,592 | |
| **31** | | |  | | **Electric wire SVVP 2x0.5 mm2** | | | **m** | | |  | | **100,000** | |
|  | | | 600SVVP-2x0.5 | | Electric wire SVVP 2x0.5 mm2 | | | m | | | 1,000 | | 100,00 | |
| **32** | | |  | | **Electric wire SVVP 2x0.75 mm2** | | | **m** | | |  | | **50,000** | |
|  | | | 600SVVP-2x0.75 | | Electric wire SVVP 2x0.75 mm2 | | | m | | | 1,000 | | 50,00 | |
| **33** | | |  | | **Electric wire SVVP 2x1.0 mm2** | | | **m** | | |  | | **50,000** | |
|  | | | 600SVVP-2x1.0 | | Electric wire SVVP 2x1.0 mm2 | | | m | | | 1,000 | | 50,00 | |
| **34** | | |  | | **Electric wire PVS 3x0.75 mm2** | | | **m** | | |  | | **60,000** | |
|  | | | 600PVS-3x0.75 | | Electric wire PVS 3x0.75 mm2 | | | m | | | 1,000 | | 60,00 | |
| **35** | | |  | | **Electric wire PVS 3x1.5 mm2** | | | **m** | | |  | | **50,000** | |
|  | | | 600PVS-3x1.5 | | Electric wire PVS 3x1.5 mm2 | | | m | | | 1,000 | | 50,00 | |
| **36** | | |  | | **Electric wire PVS 4x0.75 mm2** | | | **m** | | |  | | **30,000** | |
|  | | | 600PVS-4x0.75 | | Electric wire PVS 4x0.75 mm2 | | | m | | | 1,000 | | 30,00 | |
| **37** | | |  | | **Electric wire PVS 4x1.5 mm2** | | | **m** | | |  | | **30,000** | |
|  | | | 600PVS-4x1.5 | | Electric wire PVS 4x1.5 mm2 | | | m | | | 1,000 | | 30,00 | |
| **38** | | | **08-02-412-3** | | **Insertion of conductors into laid pipes and hoses: total cross-section up to 16 mm2** | | | **100 m** | | |  | | **0,500** | |
|  | | | 1 | | Worker | | | mh | | | 7,860 | | 3,93 | |
|  | | | 1019852 | | Paint | | | kg | | | 0,020 | | 0,01 | |
|  | | | 5009041 | | Clamping device - branching | | | 100 pcs | | | 0,310 | | 0,155 | |
|  | | | 5009056 | | Insulation caps | | | 10 pcs | | | 0,800 | | 0,40 | |
|  | | | 5009061 | | Insulation sheet | | | pcs | | | 12,200 | | 6,10 | |
|  | | | 5009140 | | Connection plugs | | | 100 pcs | | | 0,050 | | 0,025 | |
|  | | | 5009500 | | Marking sheets | | | 100 pcs | | | 0,020 | | 0,01 | |
|  | | | 5440089 | | Insulating adhesive tape | | | kg | | | 0,320 | | 0,16 | |
| **39** | | |  | | **Electric wire PVS 4x2.5 mm2** | | | **m** | | |  | | **50,000** | |
|  | | | 600PVS-4x2.5 | | Electric wire PVS 4x2.5 mm2 | | | m | | | 1,000 | | 50,00 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total Cables and wires (internal connections)** | | |  | | | | | | |
| **1.5. Mounting elements** | | | | | | | | | | | | | | |
| **40** | | | **08-02-409-1** | | **Vinyl plastic pipe on installed structures, on walls and columns, fixing with clamps, diameter up to 25 mm, k=0.5 for labor** | | | **100 m** | | |  | | **0,200** | |
|  | | | 1 | | Worker | | | mh | | | 23,800 | | 2,38 | |
|  | | | 1010813 | | Low carbon steel wire for various purposes, galvanized, diameter 3.0 mm | | | t | | | 0,0021 | | 0,00 | |
|  | | | 1019109 | | Connection plugs | | | 10 pcs | | | 13,400 | | 2,68 | |
|  | | | 1139042 | | Glue "BMK-5k" | | | kg | | | 0,200 | | 0,04 | |
|  | | | 5009030 | | flanges | | | 10 pcs | | | 1,000 | | 0,20 | |
|  | | | 5009031 | | clamp | | | 10 pcs | | | 6,700 | | 1,34 | |
|  | | | 5009061 | | Insulation sheet | | | pcs | | | 18,000 | | 3,60 | |
|  | | | 5009070 | | connection | | | 10 pcs | | | 1,800 | | 0,36 | |
|  | | | 331451 | | Electric drills | | | hr | | | 4,840 | | 0,968 | |
| **41** | | |  | | **Smooth PVC pipe ф16 mm** | | | **m** | | |  | | **20,000** | |
|  | | | 60039 | | Smooth PVC pipe ф16 mm | | | m | | | 1,000 | | 20,00 | |
| **42** | | | **08-02-390-1** | | **Plastic channels with width: up to 40 mm.** | | | **100 m** | | |  | | **0,200** | |
|  | | | 1 | | Worker | | | mh | | | 16,290 | | 3,258 | |
|  | | | 101-1485 | | Round head screws 4х40 mm | | | kg | | | 1,000 | | 0,20 | |
|  | | | 101-2202 | | Polyethylene spacers 6х40 mm | | | pcs | | | 200,000 | | 40,00 | |
|  | | | 134041 | | Screwdriver | | | hr | | | 6,080 | | 1,216 | |
|  | | | 331451 | | Electric drills | | | hr | | | 6,080 | | 1,216 | |
| **43** | | |  | | **Cable channel 25\*16** | | | **m** | | |  | | **20,000** | |
|  | | | 60041 | | Cable channel 25\*16 | | | m | | | 1,000 | | 20,00 | |
| **44** | | | **08-02-390-2** | | **Plastic channels with width: up to 63 mm.** | | | **100 m** | | |  | | **0,200** | |
|  | | | 1 | | Worker | | | mh | | | 18,390 | | 3,678 | |
|  | | | 101-1485 | | Round head screws 4х40 mm | | | kg | | | 1,000 | | 0,20 | |
|  | | | 101-2202 | | Polyethylene spacers 6х40 mm | | | pcs | | | 300,000 | | 60,00 | |
|  | | | 134041 | | Screwdriver | | | hr | | | 6,880 | | 1,376 | |
|  | | | 331451 | | Electric drills | | | hr | | | 6,880 | | 1,376 | |
| **45** | | |  | | **Cable channel 60\*40** | | | **m** | | |  | | **20,000** | |
|  | | | 60043 | | Cable channel 60\*40 | | | m | | | 1,000 | | 20,00 | |
| **46** | | | **08-02-411-1** | | **Metal hose, outer diameter up to 48 mm, k=0.5 for labor** | | | **100 m** | | |  | | **0,500** | |
|  | | | 1 | | Worker | | | mh | | | 34,700 | | 8,675 | |
|  | | | 1010115 | | Pan head screws, length 50 mm | | | t | | | 0,00218 | | 0,001 | |
|  | | | 1010813 | | Low carbon steel wire for various purposes, galvanized, diameter 3.0 mm | | | t | | | 0,003 | | 0,002 | |
|  | | | 1019109 | | Connection plugs | | | 10 pcs | | | 21,800 | | 10,90 | |
|  | | | 1039160 | | Coupling sleeves | | | pcs | | | 10,000 | | 5,00 | |
|  | | | 5009031 | | clamp | | | 10 pcs | | | 25,000 | | 12,50 | |
|  | | | 5009061 | | Insulation sheet | | | pcs | | | 10,000 | | 5,00 | |
|  | | | 5009070 | | connection | | | 10 pcs | | | 1,000 | | 0,50 | |
|  | | | 5009081 | | Flexible connection bridges, type "ПГС-50" | | | pcs | | | 5,000 | | 2,50 | |
|  | | | 331451 | | Electric drills | | | hr | | | 4,440 | | 2,22 | |
| **47** | | |  | | **Corrugated metal tube ф22** | | | **m** | | |  | | **30,000** | |
|  | | | 60045 | | Corrugated metal tube ф22 | | | m | | | 1,000 | | 30,00 | |
| **48** | | |  | | **Corrugated metal tube ф25** | | | **m** | | |  | | **20,000** | |
|  | | | 60046 | | Corrugated metal tube ф25 | | | m | | | 1,000 | | 20,00 | |
| **49** | | |  | | **Various metal elements** | | | **kg** | | |  | | **100,000** | |
|  | | | 60047 | | Various metal elements | | | kg | | | 1,000 | | 100,00 | |
| **50** | | | **08-02-396-6** | | **Metal channel on walls and ceilings, length 3 m** | | | **100 m** | | |  | | **0,900** | |
|  | | | 1 | | Worker | | | mh | | | 29,400 | | 26,46 | |
|  | | | 1011924 | | Electrodes E42A, diameter 4 mm | | | kg | | | 6,840 | | 6,156 | |
|  | | | 1019103 | | Spacer plugs | | | 100 pcs | | | 0,400 | | 0,36 | |
|  | | | 1019109 | | Connection plugs | | | 10 pcs | | | 12,500 | | 11,25 | |
|  | | | 040502 | | Installations for manual electric arc welding (direct current) | | | hr | | | 2,160 | | 1,944 | |
| **51** | | |  | | **Metal gutter 50x100 mm with cover and shaped elements (connectors, tees, elbows, fixing systems)** | | | **m** | | |  | | **90,000** | |
|  | | | 600jg-50x100 | | Metal gutter 50x100 mm with cover and shaped elements (connectors, tees, elbows, fixing systems) | | | m | | | 1,000 | | 90,00 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total Mounting elements** | | |  | | | | | | |
| **1.6. Equipment for monitoring air pollution with lead and harmful gases and metals** | | | | | | | | | | | | | | |
| **52** | | | **11-03-011-03** | | **Devices for analyzing the physico-chemical content of the substance: device, complexity category: III** | | | **set** | | |  | | **1,000** | |
|  | | | 1 | | Worker | | | mh | | | 12,300 | | 12,30 | |
|  | | | 1012037 | | Bolts with zinc-plated nuts and washers, diameter 8 mm | | | kg | | | 0,868 | | 0,868 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total Equipment for monitoring air pollution with lead and harmful gases and metals** | | |  | | | | | | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | *Social insurance* | | |  | | |  | |  | |
|  | | |  | | *Transport of materials* | | |  | | |  | |  | |
|  | | |  | | *Storage purchase expenses* | | |  | | |  | |  | |
|  | | |  | | *Direct expenses* | | |  | | |  | |  | |
|  | | |  | | *Overhead expenses* | | |  | | |  | |  | |
|  | | |  | | *Total with OE* | | |  | | |  | |  | |
|  | | |  | | *Quote benefit* | | |  | | |  | |  | |
|  | | |  | | **Total Installation work** | | |  | | | | | | |
| **2. Equipment** | | | | | | | | | | | | | | |
| **2.1. Machine automation** | | | | | | | | | | | | | | |
| **53** | | |  | | **Outdoor temperature sensor VENTS NDT or analog** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700NDT | | Outdoor temperature sensor VENTS NDT | | | pcs | | | 1,000 | | 1,00 | |
| **54** | | |  | | **CO2, humidity and room temperature sensor Komfovent SCR or analogue** | | | **pcs** | | |  | | **3,000** | |
|  | | | 700SCR | | Komfovent SCR CO2, humidity and room temperature sensor | | | pcs | | | 1,000 | | 3,00 | |
| **55** | | |  | | **Sensit NS 111B outdoor temperature sensor or analog** | | | **pcs** | | |  | | **2,000** | |
|  | | | 700NS111B | | Sensit NS 111B outdoor temperature sensor | | | pcs | | | 1,000 | | 2,00 | |
| **56** | | |  | | **Reception and control panel for directing and regulating the K2-B2 (K3-B3) system Remak HMI-DM or analogue** | | | **pcs** | | |  | | **2,000** | |
|  | | | 700HMI-DM | | Reception and control panel for directing and regulating the K2-B2 (K3-B3) system Remak HMI-DM | | | pcs | | | 1,000 | | 2,00 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total Machine automation** | | |  | | | | | | |
| **2.2. SH automation cabinet (ОЗК)** | | | | | | | | | | | | | | |
| **57** | | |  | | **Lada de metal GT 80-50-20 dim. 800x600x200 mm ETI 001102132 sau analog** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700GT80-60-20 | | Metal barrel GT 80-50-20 dim. 800x600x200 mm ETI 001102132 | | | pcs | | | 1,000 | | 1,00 | |
| **58** | | |  | | **Circuit breaker ETIMAT 6 3P C10 ETI 002145514 or analogue** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700eti3-10C | | Circuit breaker ETIMAT 6 3P C10 ETI 002145514 | | | pcs | | | 1,000 | | 1,00 | |
| **59** | | |  | | **Circuit breaker ETIMAT 6 1P B6 ETI 002111512 or analogue** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700eti1-6B | | Circuit breaker ETIMAT 6 1P B6 ETI 002111512 | | | pcs | | | 1,000 | | 1,00 | |
| **60** | | |  | | **Circuit breaker ETIMAT 6 1P C2 ETI 002141508 or analogue** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700eti1-2C | | Circuit breaker ETIMAT 6 1P C2 ETI 002141508 | | | pcs | | | 1,000 | | 1,00 | |
| **61** | | |  | | **Distribution block EDB-415 ETI 1102305 or similar** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700EDB-415 | | Distribution block EDB-415 ETI 1102305 | | | pcs | | | 1,000 | | 1,00 | |
| **62** | | |  | | **Power supply unit 24Vdc 20A PS-480-24 ETI 004656684 or analog** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700PS-480-24 | | Power supply unit 24Vdc 20A PS-480-24 ETI 004656684 | | | pcs | | | 1,000 | | 1,00 | |
| **63** | | |  | | **Signal lamp ELPI-240A-G green ~230V ETI 004771712 or analogue** | | | **pcs** | | |  | | **4,000** | |
|  | | | 700ELPI-240A-G-verde | | Signal lamp ELPI-240A-G green ~230V ETI 004771712 | | | pcs | | | 1,000 | | 4,00 | |
| **64** | | |  | | **Signal lamp ELPI-024C-Y yellow 24V ETI 004771703 or analogue** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700ELPI-024C-Y-yellow | | Signal lamp ELPI-024C-Y yellow 24V ETI 004771703 | | | pcs | | | 1,000 | | 1,00 | |
| **65** | | |  | | **Signal lamp ELPI-240A-R red ~230V ETI 004771711 or analogue** | | | **pcs** | | |  | | **4,000** | |
|  | | | 700ELPI-240A-R-rosu | | Signal lamp ELPI-240A-R red ~230V ETI 004771711 | | | pcs | | | 1,000 | | 4,00 | |
| **66** | | |  | | **Signal lamp LS LED 10 R 24 red 24V AC ETI 004770808 or analogue** | | | **pcs** | | |  | | **10,000** | |
|  | | | 700LS-LED-10-R-24-rosu | | Signal lamp LS LED 10 R 24 red 230V AC ETI 004770805 | | | pcs | | | 1,000 | | 10,00 | |
| **67** | | |  | | **Signal lamp LS LED 10 R 24 green 24V AC ETI 004770807 or analogue** | | | **pcs** | | |  | | **10,000** | |
|  | | | 700LS-LED-10-R-24-verde | | Signal Lamp LS LED 10 R 24 Green 230V AC ETI 004770804 | | | pcs | | | 1,000 | | 10,00 | |
| **68** | | |  | | **Signal lamp LS LED 10 R 24 red 230V AC ETI 004770805 or analogue** | | | **pcs** | | |  | | **3,000** | |
|  | | | 700LS-LED-10-R-24-rosu | | Signal lamp LS LED 10 R 24 red 230V AC ETI 004770805 | | | pcs | | | 1,000 | | 3,00 | |
| **69** | | |  | | **Signal lamp LS LED 10 R 24 green 230V AC ETI 004770804 or analogue** | | | **pcs** | | |  | | **3,000** | |
|  | | | 700LS-LED-10-R-24-verde | | Signal Lamp LS LED 10 R 24 Green 230V AC ETI 004770804 | | | pcs | | | 1,000 | | 3,00 | |
| **70** | | |  | | **Actuator, 3 positions, ECS3S-N30-20 contact 2NO ETI 004771644 or analog** | | | **pcs** | | |  | | **3,000** | |
|  | | | 700ECS3S-N30-20 | | Actuator, 3 positions, ECS3S-N30-20 contact 2NO ETI 004771644 | | | pcs | | | 1,000 | | 3,00 | |
| **71** | | |  | | **Actuator, 2 positions, EGS2S-N90-C contact 1NO+1NC ETI 004771322 or analog** | | | **pcs** | | |  | | **3,000** | |
|  | | | 700EGS2-N90-C | | Actuator, 2 positions, EGS2S-N90-C contact 1NO+1NC ETI 004771322 | | | pcs | | | 1,000 | | 3,00 | |
| **72** | | |  | | **Comutator ON-OFF-ON Tongle switch KASAN 1321 sau analog** | | | **pcs** | | |  | | **10,000** | |
|  | | | 700KASAN1321 | | Comutator ON-OFF-ON Tongle switch KASAN 1321 | | | pcs | | | 1,000 | | 10,00 | |
| **73** | | |  | | **Conventional siren 24Vdc INIM IS2000 or analog** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700INIM-IS2000 | | Conventional siren 24Vdc INIM IS2000 | | | pcs | | | 1,000 | | 1,00 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total SH automation cabinet (ОЗК)** | | |  | | | | | | |
| **2.3. Equipment for monitoring air pollution with lead and harmful gases and metals** | | | | | | | | | | | | | | |
| **74** | | |  | | **Airborne Lead Analyzer (Scentroid Airborne Lead Analyzer) - zero price, beneficiary supply** | | | **pcs** | | |  | | **1,000** | |
|  | | | 700Analyzer | | Airborne Lead Analyzer (Scentroid Airborne Lead Analyzer) - provided by the beneficiary | | | pcs | | | 1,000 | | 1,00 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | **Total Equipment for monitoring air pollution with lead and harmful gases and metals** | | |  | | | | | | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | *Storage purchase expenses* | | |  | | |  | |  | |
|  | | |  | | **Total Machinery** | | |  | | | | | | |
| **3. Equipment commissioning work** | | | | | | | | | | | | | | |
| **75** | | | **1-10-002-1** | | **Signaling sector formation circuit (central, technological, local, emergency, warning, etc.)** | | | **1 sector** | | |  | | **1,000** | |
|  | | | 5 | | Specialist | | | mh | | | 29,000 | | 29,00 | |
| **76** | | | **1-10-001-1** | | **Collection and production of information signals of protection devices, automation of electrical and technological regimes** | | | **signal** | | |  | | **16,000** | |
|  | | | 5 | | Specialist | | | mh | | | 1,500 | | 24,00 | |
| **77** | | | **10-06-068-14** | | **Adjustment of digital synchronous transmission systems. Adjustment of the control and management system: Installation of the operating system, program provision / Adjustment and programming works of K1-B1, K2-B2 systems, Analyzer** | | | **pcs** | | |  | | **4,000** | |
|  | | | 1 | | Worker | | | mh | | | 208,000 | | 832,00 | |
| **78** | | | **1-13-030-1** | | **Technological complex, with ordered sectors, quantity up to 5 pieces / Programming works of the interconnection of installations according to the BACNet protocol** | | | **complex** | | |  | | **1,000** | |
|  | | | 5 | | Specialist | | | mh | | | 87,000 | | 87,00 | |
|  | |  | |  | | |  | | |  | |  | | |
|  | | |  | | *Total* | | |  | | |  | |  | |
|  | | |  | | *Social insurance* | | |  | | |  | |  | |
|  | | |  | | *Overhead expenses* | | |  | | |  | |  | |
|  | | |  | | *Quote benefit* | | |  | | |  | |  | |
|  | | |  | | **Total Equipment commissioning work** | | |  | | | | | | |
|  |  | | |  | |  | | |  | | | | | |
|  |  | | |  | |  | | |  | | | | | |
|  | | |  | | Total | | |  | | |  | | | |
|  | | |  | | **Total currency:** | | |  | | | | | |  |

|  |  |
| --- | --- |
| **Developed by** |  |
| (last name, first name, position, signature,) | |