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|---|---|---|---|---|--|------------------------------------|----------|
|  |   | Date:   | 2025.06.03  |   | Rev:   | 0                                  |          |
|   |   | Prepared by   | A. Vasiliauskas   |   |  |                                    |          |
|   |   |   |   |   |  |                                    |          |
| CLIENT:   | AB, ORLEN Lietuva   |   |   |   |  |                                    |          |
| PROJECT:  | New Air Dryer for Rail Tank drying  |   |   |   |  |                                    |          |
| LOCATION:   | Mažeikių St. 75, Juodeikiai village, LT-89467 Mažeikiai District Municipality, Lithuania  |   |   |   |  |                                    |          |
| <b>Data sheet for Ambient Air Compressor &amp; Drying System with Heating</b>     |   |   |   |   |  |                                    |          |
| 1   | <b>General data for one Unit</b>  |   |   |   |  |                                    |          |
| 2   | Number Required:  | 1   |   | Item No:  | OTJ-1  |                                    |          |
| 3   | Manufacturer:   | EU, EN  |   | Type:   | By vendor                                    |                                    |          |
| 4   | Ambient (Outdoor) Temp. (°C)  | Normal:   | (+) 5   | Maximum:  | (+)37  | Minimum:                           | (-)36    |
| 5   | Maximum Relative Humidity (Percent):  | 95%   |   |   | 50%  |                                    | 70%      |
| 6   | Location:   | <input checked="" type="checkbox"/> Outdoors  | <input type="checkbox"/> Indoors  |   |  | Elevation (m, ASL):                | 67       |
| 7   | Area Hazard Classification:   | <input type="checkbox"/> Hazardous  | <input checked="" type="checkbox"/> Nonhazardous  |   |  |                                    |          |
| 8   |   | Zone:   | NA  | Group:  | NA   | T Code:                            | NA       |
| 9   | Source of Air:  | <input checked="" type="checkbox"/> Ambient air                                       | <input type="checkbox"/> Non-Lube   | <input type="checkbox"/> Aftercooler  | <input type="checkbox"/> Separator           |                                    |          |
| 10  | Service:  | <input type="checkbox"/> Instrument Air   | <input checked="" type="checkbox"/> Plant Air   |   |  |                                    |          |
| 11  | Inlet Pressure (bar g):   | Ambient air   |   | Inlet Temperature (°C):   | Ambient air                                  |                                    |          |
| 12  | Discharge Flowrate (m³/h; at 20°C, 0 barg)  | Maximum:  | 1200  | Normal:   | 1000   | Minimum:                           | 300      |
| 13  | Discharge flow conditions:  | <input checked="" type="checkbox"/> Constant flow                                     | <input type="checkbox"/> Pressure maintenance in the user system                                    |   |  |                                    |          |
| 14  | Required Continuous Pressure Dew Point (°C):  | Below (-)40   |   | Discharge Air Pressure (bar g):   | Normal:                                      | 5,5 ÷ 6,5                          | Minimum: |
| 15  | Required Discharge Air conditions :   | According to ISO 8573-1 (2010)  |   |   |  |                                    |          |
| 16  |   | Water:  | Class 2   | Oil:  | Class 1                                      | Particulates :                     | Class 1  |
| 17  | Must outlet temperature to plant air network:   | min: (+)45, max: (+)90°C  |   | <input checked="" type="checkbox"/> Heating with ON-OFF and temp. regulation function |  |                                    |          |
| 18  | Operation:  | <input checked="" type="checkbox"/> Automatic   | <input type="checkbox"/> Semiautomatic  | <input type="checkbox"/> Manual   |  |                                    |          |
| 19  | Outdoor Local Control Panel:  | <input checked="" type="checkbox"/> Included  | <input checked="" type="checkbox"/> Starting and stopping from the local panel                      |   |  |                                    |          |
| 20  | Emergency siren and red light beacon on the outside of the panel:   | <input checked="" type="checkbox"/> Included  |   |   |  |                                    |          |
| 21  | <b>Utilities Available</b>  |   |   |   |  |                                    |          |
| 22  | Steam:  | Impossible  | Pressure (kPag):  | Temperature (°C):   | Flowrate (Kg/h):                             |                                    |          |
| 23  | Cooling Water:  | Impossible  | <input type="checkbox"/> From the river   | <input checked="" type="checkbox"/> Salt  | <input type="checkbox"/> Glycol/Water        |                                    |          |
| 24  |   | Pressure (bar g):   | In:   | 5,0   | Out:   | 4,5                                |          |
| 25  |   | Temperature (°C):   | In:   | 15-27   | Out:   | < 45                               |          |
| 26  |   | Flowrate (m³/h):  | NA  |   |  |                                    |          |
| 27  | Electrical Elements   | Volts   | Phase   |   | Hertz  |                                    |          |
| 28  | Heating   | 400/230   | 3/1   |   | 50   |                                    |          |
| 29  | Controls  | 230   | 1   |   | 50   |                                    |          |
| 30  | Motors or others (kW), Smaller than 0.75  | 230   | 1   |   | 50   |                                    |          |
| 31  | Motors or others (kW), 0.75 & larger  | 400   | 3   |   | 50   |                                    |          |
| 32  | Electricity Required (kW)   | By Vendor   |   | Heating:  | By Vendor                                    |                                    |          |
| 33  | Instrument Air Pressure, barg (existing):   | 3,5-4,2   |   | Flowrate (m³/h):  | By Vendor                                    |                                    |          |
| 34  | <b>Regeneration</b>   |   |   |   |  |                                    |          |
| 35  | Cycle Time (minutes):   | Regeneration Time (minutes)   |   | Cooling Time (minutes):   |  |                                    |          |
| 36  | Method of Regeneration:   | <input type="checkbox"/> Steam  | <input checked="" type="checkbox"/> Electrical  | <input checked="" type="checkbox"/> Purge   |  |                                    |          |
| 37  | Type:   | <input type="checkbox"/> Internal   | <input checked="" type="checkbox"/> External (from ambient air)                                     |   |  |                                    |          |
| 38  | Regeneration Air Required (m³/h; FAD):  | By Vendor   |   | Regeneration Temperature Range (°C):  | By Vendor                                    |                                    |          |
| 39  | Vent Losses (m3/h):   |   |   |   |  |                                    |          |
| 40  | Regeneration Initiation   | <input type="checkbox"/> Timer (option)   | <input checked="" type="checkbox"/> Dew point Analyzer, Analyzer should be included to Dryer system |   |  |                                    |          |
| 41  | <b>Desiccant</b>  |   |   |   |  |                                    |          |
| 42  | Type:   | By Vendor   |   | Design Adsorbing Capacity (wt%):  | By Vendor                                    |                                    |          |
| 43  | Bed Weight (kg):  | By Vendor   |   | Bed Velocity (mps):   | By Vendor                                    |                                    |          |
| 44  | Bed Diameter (mm):  | By Vendor   |   | Pressure Drop (kPa):  | By Vendor                                    |                                    |          |
| 45  | <b>Insulation</b>   |   |   |   |  |                                    |          |
| 46  | Insulation:   | <input type="checkbox"/> No   | <input checked="" type="checkbox"/> Yes   | Type: By Vendor   |  |                                    |          |
| 47  | Thickness (mm):   | By Vendor   | Heaters: By Vendor  | Towers: By Vendor   | Hot Air Lines: By Vendor                     | Steam lines:                       |          |
| 48  | Weight of Complete Unit (kg):   | By Vendor   |   | Overall Dimensions (mm):  | By Vendor                                    |                                    |          |
| 49  | <b>Other Data</b>   |   |   |   |  |                                    |          |
| 50  | Reference Drawings:   | By Vendor   |   | Manufacturer Drawings:  | By Vendor                                    |                                    |          |
| 51  | Code:   | The device (unit) should be CE marked; PED2014/68/EU                                  |   | Stamped:  | <input checked="" type="checkbox"/> Yes      | <input type="checkbox"/> No        |          |
| 52  | Surface Preparation & Painting:   | By Vendor for outdoor conditions  |   |   |  |                                    |          |
| 53  | Maximum Allowable Inlet (Design) Pressure (bar g):  | NA  |   |   |  |                                    |          |
| 54  | Relief Valve Set Pressure (bar g):  | By Vendor   |   | Air receiver:   | <input checked="" type="checkbox"/> Included | <input type="checkbox"/> By vendor |          |
| 55  | Inlet and Outlet Nozzle Rating/Facing:  | CL150, RF or by Vendor  |   |   |  |                                    |          |
| 56  | Outlet Nozzle diameter:   | By Vendor   |   |   |  |                                    |          |
| 57  | Corrosion Allowance (mm):   | For Carbon Steel 2 mm   |   |   |  |                                    |          |
| 58  | Mounting Frame:   | <input checked="" type="checkbox"/> Required the one steel platform with rain shelter | <input type="checkbox"/> Not necessary  |   |  |                                    |          |
| 59  | <b>Instrument Data</b>  |   |   |   |  |                                    |          |
| 60  |   |   |   |   |  |                                    |          |
| 61  | Valdiklio parametrams išvesti į PLC atvaizdavimui reikalingas Modbus RTU 485.   |   |   |   |  |                                    |          |
| 62  | Modbus RTU 485 or direct connection of analog and discrete signals to DCS system is required to output controller parameters to DCS for indication. |   |   |   |  |                                    |          |
| 63  |   |   |   |   |  |                                    |          |
| 64  |   |   |   |   |  |                                    |          |
| 65  |   |   |   |   |  |                                    |          |