# Data Sheet Air Cooler

# Coke cooling water cooler

## RDC11 AH310

| | |
|---|---|
| Project | MIDI |
| Project-No. | 1800621000043 |
| Customer | IDOSB |
| Document-No. | AS.5001.432.320.0001-0 |
| Location | Tuzla, Turkey |
| P&ID-No. | 5001.956.320.0000-0 |

### Approval

| Modis GmbH | | |
|---|---|---|
| Prepared (Date/Dep./Sign.) | Checked (Date/Dep./Sign.) | Approved (Date/Dep./Sign.) |
| 26.02.19/CoC Plant Engineering/EG | | |
| Customer | | |
| Checked (Date/Dep./Sign.) | Approved (Date/Dep./Sign.) | |
| | | |
| | | |

### History of change

| Revision | Creator | Date | Description of Change |
|---|---|---|---|
| 0 | EG | 26.02.2019 | First Issue |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

modis

| Tag-No. | RDC11 AH310 | Data Sheet Air Cooler | | Customer | IDOSB |
|---|---|---|---|---|---|
| | | | | Project | MIDI |
| | | Description | Coke cooling water cooler | Project-No. | 1800621000043 |
| | | | | Location | Tuzla, Turkey |
| Revision | 0 | Doc.-No. | **AS.5001.432.320.0001-0** | P&ID-Number | 5001.956.320.0000-0 |

## General

| | | | | | | Rev. |
|---|---|---|---|---|---|---|
| Number of Equipment | 1 | | | | | 0A |
| Operation mode | | in series | | parallel | | |
| Location | | indoor | X | outdoor | | 0A |
| Manufacturer | Güntner | | Type | GFVC WD 050.1/23-53 | | 0A |
| Design according API 661/ISO 13706 | | | | | | |

## Design Code

| | | | | | | | | Rev. |
|---|---|---|---|---|---|---|---|---|
| X | 2014/68/EU | | | | | ASME VIII | | |
| Fluid group | | 1 | X | 2 | Division | | 1 | 2 | 0A |
| Category | | I | II | III | IV | Lethal service | | yes | | no | |
| Modul | | G | H | H1 | Special service | | no | | sour gas | |
| X | AD 2000 | | | | | | other | | | |

## Operating conditions

| | | | Tube side | | | Heating coil | | | | Rev. |
|---|---|---|---|---|---|---|---|---|---|---|
| Medium | | in | Water | out | | | | | | 0A |
| Service description | | | | | | | | | | |
| Corrosion / Erosion by | | | | | | | | | | |
| H2 [% vol] / H2S [ppm] / Chloride | | | | | | | | | | |
| Total acid number | TAN | | | | | | | | | |
| Partial pressure H2 / H2S | bar a | | | | | | | | | |
| Mass flow | | | | | | | | | | |
| Total | kg/h | | 6463,0 | | | | | | | 0A |
| Liquid | kg/h | in | 6463,0 | out | | in | | out | | 0A |
| Vapor | kg/h | in | | out | | in | | out | | |
| Water / Steam | kg/h | in | | out | | in | | out | | |
| Operating temperature | | | | | | | | | | |
| T, normal | °C | in | 50 | out | 30 | in | | out | | 0A |
| T, maximum | °C | in | 55 | out | 35 | in | | out | | 0A |
| T, minimum | °C | in | 35 | out | 25 | in | | out | | 0A |
| Operating pressure | | | | | | | | | | |
| p, normal | bar g | in | 3 | out | ~2,8 | in | | out | | 0A |
| p, maximum | bar g | in | | out | | in | | out | | |
| p, minimum | bar g | in | | out | | in | | out | | |
| Others | | | | | | | | | | |
| Velocity | m/s | | | | | | | | | |
| Pressure drop (max. allow.) | bar | | 0,8 | | | | | | | 0A |
| Liquid | | | | | | | | | | |
| Density at 15°C, 1 bar | kg/m³ | in | 999,2 | out | | in | | out | | 0A |
| Density, normal | kg/m³ | in | 991,89 | out | | in | | out | | 0A |
| Viscosity, normal | mPa*s | in | 0,66 | out | | in | | out | | 0A |
| Specific heat | kJ/(kg*K) | in | 4,182 | out | | in | | out | | 0A |
| Thermal conductivity | W/(m*K) | in | 0,63 | out | | in | | out | | 0A |
| Enthalpy | kJ/kg | in | | out | | in | | out | | |
| Solidification point | °C | | 0 | | | | | | | 0A |
| Boiling point at p, normal | °C | | 143,6 | | | | | | | 0A |
| Vapor | | | | | | | | | | |
| Molecular weight | kg/kmol | in | | out | | in | | out | | |
| Density, normal | kg/m³ | in | | out | | in | | out | | |
| Viscosity, normal | mPa*s | in | | out | | in | | out | | |
| Specific heat | kJ/(kg*K) | in | | out | | in | | out | | |

modis

| Tag-No. | RDC11 AH310 | Data Sheet Air Cooler | | Customer | IDOSB |
|---|---|---|---|---|---|
| | | | | Project | MIDI |
| | | Description | Coke cooling water cooler | Project-No. | 1800621000043 |
| | | | | Location | Tuzla, Turkey |
| Revision | 0 | Doc.-No. | **AS.5001.432.320.0001-0** | P&ID-Number | 5001.956.320.0000-0 |

## Operating conditions (continued)

| | | | Hot side | | | | Heating coil | | | Rev. |
|---|---|---|---|---|---|---|---|---|---|---|
| Thermal conductivity | W/(m*K) | in | | out | | in | | out | | |
| Enthalpy | kJ/kg | in | | out | | in | | out | | |
| Dew point at p, normal | °C | | | | | | | | | |
| **Others** | | | | | | | | | | |
| Latent heat | kJ/kg | in | | out | | in | | out | | |
| Fouling coefficient | m²K/W | in | 0,0003 | out | | in | | out | | 0A |

| | | | Air side |
|---|---|---|---|
| Air inlet temp. (design dry bulb) | °C | 29,0 1) | 0A |
| Air flow rate/item | m³/s | | |
| Mass velocity (net free area) | kg/s*m² | | |
| Air outlet temperature | °C | | |
| Air flowrate/fan | m³/s | | |
| Face velocity | m/s | | |
| Min. design ambient temperature | °C | -16,0 | 0A |
| Altitude | m | | |
| Static pressure | kPa | | |

| | | | | | |
|---|---|---|---|---|---|
| Heat transferred | kW | 150,0 | Heat transfer surface finned tube | m² | 0A |
| Heat transfer coefficient finned | W/(m²*K) | | Heat transfer surface bare tube | m² | |
| Heat transfer coef. bare tube service | W/(m²*K) | | | | |

## Construction Data

**Tube bundle** (Rev.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Size (W*L) | m | | | | | |
| No./bay | | | | | | |
| No. of tube rows | | | | | | |
| Bundles in parallel | | | Bundles in series | | | |
| Structure mounting | | Grade | ☐ | Pipe rack | ☐ | Other |
| Pipe-rack beams (distance C-C) | | | | | | |
| Ladders, walkways, platforms | | yes | ☐ | no | | |
| Structure surf. prep./coating | | | | | | |
| Header surf. prep./coating | | | | | | |

☐ **Louvre**

| | | | | |
|---|---|---|---|---|
| Action control | ☐ | Auto | ☐ | Manual |
| Action type | ☐ | Opposed | ☐ | Parallel |

☐ **Heating coil** (Rev.)

| | | | | | |
|---|---|---|---|---|---|
| No. of tubes | | | | Fin type | |
| Outer diameter OD | mm | | | Thickness | |

**Header** (Rev.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Type | | | | Slope | mm/m | |
| Corrosion allowance | mm | 1 | 0A | Chemical Cleaning | | |
| No. of passes | | | | Minimum wall thickness | mm | |

**Tube** (Rev.)

| | | | | | | |
|---|---|---|---|---|---|---|
| Outer diameter OD | mm | | | Length | mm | |
| Minimum wall thickness | mm | | | Pitch | mm | |
| No./bundle | | | | Layout | | |

**Remarks see next page**

modis

| Tag-No. | RDC11 AH310 | Data Sheet Air Cooler | | Customer | IDOSB |
|---|---|---|---|---|---|
| | | | | Project | MIDI |
| | | Description | Coke cooling water cooler | Project-No. | 1800621000043 |
| | | | | Location | Tuzla, Turkey |
| Revision | 0 | Doc.-No. | **AS.5001.432.320.0001-0** | P&ID-Number | 5001.956.320.0000-0 |

## Construction Data (continued)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ☐ | **Fin** | | Rev. | | | | Rev. |
| | Type | | | Outer diameter OD | mm | | |
| | Stock thickness | mm | | No./m | | | |
| | Selection temperature | °C | | | | | |

## Design Conditions

| | | | Hot side | | | | Heating coil | | | Rev. |
|---|---|---|---|---|---|---|---|---|---|---|
| Max. allowable pressure | bar g | min | -0,5 | max | 10 | min | | max | | 0A |
| Max. allowable temperature | °C | min | 0 | max | 80 | min | | max | | 0A |
| Test pressure | bar g | acc. Code | | | | | | | | 0A |
| Corrosion allowance | mm | 1 | | | | | | | | 0A |
| Weld efficiency factor | | | | | | | | | | 0A |
| Wind loads | zone 4 | acc. to AD2000 Merkblatt S3, DIN EN 1993-3-2 resp. DIN 1055-2 | | | | | | | | 0A |
| Earthquake zone | zone 3 | acc. to DIN 4149 for site | | | | | | | | 0A |
| Other loads | | | | | | | | | | |

## Mechanical Equipment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fan** | | Rev. | | | | | Rev. |
| Manufacturer & Model | | | Diameter | m | | | |
| No./bay | | | No. of blades | | | | |
| Speed | r/min | | Angle | | | | |
| Pitch adjustment | ☐ Manual | ☐ | Auto | | | | |
| kW/fan @design temperature | | | Max. allow. tip speed | m/s | | | |
| kW/fan @min. ambient temp. | | | Calculated tip speed | m/s | | | |
| **Driver** | | | | | | | |
| Type | electric | 0A | Enclosure | | | | |
| Manufacturer & Model | | | Current | V | 400 | 0A | |
| No./bay | | | Phase | | 3 | 0A | |
| Driver | kW | | Cycle | | | | |
| Speed | r/min | | Fan noise level | db(A) | <70 | 0A | |
| Service Factor | | | allowed/calculated | @m | | | |
| **Speed reducer** | | | | | | | |
| Type | | | Service factor | | | | |
| Manufacturer & Model | | | Speed ratio | /1 | | | |
| No./bay | | | Enclosure | | | | |
| Support | ☐ Structure | ☐ | Pedestal | | | | |
| Vibration switch | ☐ yes | ☐ | no | | | | |

## Controls air-side

| | | | | | | | Rev. |
|---|---|---|---|---|---|---|---|
| **Air circulation** | ☐ | None | ☐ | Internal | ☐ | External | |
| Over: | ☐ | Side | ☐ | End | | | |
| Degree control of outlet process temp. (max cooling) | | | | °C | + | - | |
| Action on control signal failure | | | | | | | |
| Fan pitch: | ☐ | Minimum | ☐ | Maximum | ☐ | Lockup | |
| Louvres: | ☐ | Open | ☐ | Close | ☐ | Lockup | |
| Actuator air supply | | | | | | | |
| Fan: | ☐ | None | X | Positioner | ☐ | Bias relay | 0A |

| **Remarks** | Rev. |
|---|---|
| **1) max air temp is 45,5 °C at peaks, performance reduction accepted for peaks** | 0A |

modis

| Tag-No. | RDC11 AH310 | Data Sheet Air Cooler | | Customer | IDOSB |
|---|---|---|---|---|---|
| | | | | Project | MIDI |
| | | Description | Coke cooling water cooler | Project-No. | 1800621000043 |
| | | | | Location | Tuzla, Turkey |
| Revision | 0 | Doc.-No. | **AS.5001.432.320.0001-0** | P&ID-Number | 5001.956.320.0000-0 |

## Controls air-side (continued)

Rev.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Louvres:** | | Inlet | | Outlet | | Bypass | | | | |
| Positioner | | Yes | | No | | | | | | |
| Signal air pressure | | | | kPa | min | | max | | | |
| Signal air pressure | | | | kPa | min | | max | | | |

## Geometric data

Rev.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Dimensions (without insulation) | mm | Length | | Width | | Height | | |
| Weight | kg | | empty | kg | | operating | | |
| | kg | | water filled | kg | | emergency | | |

## Material

| | | Rev. | | | | Rev. |
|---|---|---|---|---|---|---|
| Tube bundle | CS | 0A | Nozzles | hot side | heating coil | |
| Fins | | | Pipes | CS | | 0A |
| Heating coil tube | | | Flanges | CS | | 0A |
| Heating coil fins | | | Bolts / Nuts | | | |
| Header | CS | 0A | Entrance lining | | | |
| Header plug | | | Blind flanges | | | |
| Fan blades | | | Gaskets | | | |
| Fan Hub | | | Supports | | | |
| Louvre | | | Insulation | | | |

## Additional water cooling

Rev.

| | | | | | |
|---|---|---|---|---|---|
| Mass flow | kg/h | in | | out | |
| Operating temperature | | | | | |
| T, normal | °C | in | | out | |
| T, maximum | °C | in | | out | |
| T, minimum | °C | in | | out | |
| Operating pressure | | | | | |
| p, normal | bar g | in | | out | |
| p, maximum | bar g | in | | out | |
| p, minimum | bar g | in | | out | |

Rev.

modis

| Tag-No. | RDC11 AH310 | Data Sheet Air Cooler | | Customer | IDOSB |
|---|---|---|---|---|---|
| | | | | Project | MIDI |
| | | Description | Coke cooling water cooler | Project-No. | 1800621000043 |
| | | | | Location | Tuzla, Turkey |
| Revision | 0 | Doc.-No. | **AS.5001.432.320.0001-0** | P&ID-Number | 5001.956.320.0000-0 |

## Surface preparation / Corrosion protection

| | | | | | | | | Rev. |
|---|---|---|---|---|---|---|---|---|
| Carbon steel | X | 1st layer | adhesive agent | | Thickness | acc. Suppli | µm | 0A |
| | X | 2nd layer | adhesive agent | | Thickness | acc. Suppli | µm | 0A |
| | | 3rd layer | adhesive agent | | Thickness | | µm | |

| | | | | |
|---|---|---|---|---|
| | SS parts pickling / passivating | | | |
| | Derusting / Blasting / Priming | | | |
| | Hot dip galvanizing acc. DIN EN ISO 10684 | | Bolts / Nuts | |
| | Enameling acc. to DIN EN ISO 28721-1 | | | |
| | Cladding DIN EN 1011-5, DIN EN ISO 9692-4 for | | | |
| | Grinding / polishing | µm | inside, roughness Rmax | |
| | | µm | outside, roughness Rmax | |
| | Organic coatings and lining | DIN EN 14879-1 | DIN EN 14879-2 | DIN EN 14879-4 |
| | 2- Components layer (2 x t = 0,08 mm) | | | |

## Manufacturing Code

Reinforcement plates are to be fully welded.
Vent holes must be closed with permanently elastic material

## Testing

| | | | | | | | Rev. |
|---|---|---|---|---|---|---|---|
| Pressure test | X | according to PED | | | | | 0A |
| PED acceptance | x | by certified body, chosen by vendor | | | | | 0A |
| Certificate of conformity | X | by certified body, chosen by vendor | | | | | 0A |
| Inspection of manufacturer | | according manufacturing schedule | | | | | |
| Gas tight test | | Pressurized air DIN EN 1593 | Pressure | bar g | Leakage | mbar*l/s | |
| | | Helium DIN EN 13185 | Pressure | bar g | Leakage | mbar*l/s | |
| | | TA-Luft conformity acc. DIN 28090, DINV ENV-1591 | | | | | |

## Additional Testing

| | | | | |
|---|---|---|---|---|
| | X-Ray test | DIN EN ISO 17636 | for parts | |
| | Ultrasonic test | DIN EN ISO 17640 | for parts | |
| | Colour intrusion test | DIN EN ISO 3452 | for parts | |
| | Surface Rmax testing | DIN EN ISO 4287 | for parts | |
| | Strength test | DIN EN ISO 9015-1 | for parts | |
| | Enamel test | DIN EN ISO 28721-1 | for parts | |
| | Testing organic coating | EN 14879-2/ -4 | for parts | |

## Material documentation

| | | | | | | | Rev. |
|---|---|---|---|---|---|---|---|
| Parts with medium contact | | general | | Certificate | 3.1 | Certificate acc. to DIN EN 10204 | 0A |
| Parts without medium contact | | general | | Certificate | 2.2 | Certificate acc. to DIN EN 10204 | 0A |
| Molds (bend, Tee, Reducer; Caps) according to DIN EN 10253-2 and 10253-4 with 3.1 certificate | | | | | | | |
| Molds | | with tempering certificate | | | | | |

**Remarks** Rev.

modis

| Tag-No. | RDC11 AH310 | Data Sheet Air Cooler | | Customer | IDOSB |
|---|---|---|---|---|---|
| | | | | Project | MIDI |
| | | Description | Coke cooling water cooler | Project-No. | 1800621000043 |
| | | | | Location | Tuzla, Turkey |
| Revision | 0 | Doc.-No. | **AS.5001.432.320.0001-0** | P&ID-Number | 5001.956.320.0000-0 |

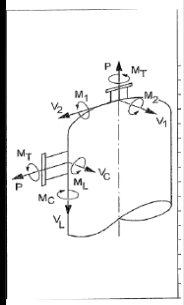
**Nozzle table**

| Designation No. | DN/NPS | PN / Rating | Length [mm] | Flange type acc. to DIN EN 1092-1 / ANSI | Nozzle acc. to DIN/ANSI | Gasketing acc. to DIN EN 1092-1 | Service | Rev. |
|---|---|---|---|---|---|---|---|---|
| N1 | 40 | 10 | | B1 | DIN | | Header Inlet | 0A |
| N2 | 40 | 10 | | B1 | DIN | | Header Outlet | 0A |
| N3 | 25 | 10 | | B1 | DIN | | Header Vent | 0A |
| N4 | 25 | 10 | | B1 | DIN | | Header Drain | 0A |
| N5 | 25 | 10 | | B1 | DIN | | Header TI | 0A |
| N6 | 25 | 10 | | B1 | DIN | | Header PI | 0A |

Nozzles shall be calculated with loads from the following table, the real nozzle loads will be given later. The nozzle loads shall be shown on manufactures drawing with sketch and table

Nozzle loads for Equipment nozzles acc. to AD2000

| DN | N | | | Nm | | |
|---|---|---|---|---|---|---|
| | P | VL | VC | ML | MC | MT |
| | | V1 | V2 | M1 | M2 | |
| 50 | 2300 | 3100 | 2300 | 500 | 400 | 800 |
| 80 | 3500 | 4100 | 3000 | 1400 | 900 | 1800 |
| 100 | 4300 | 4800 | 3500 | 2100 | 1400 | 2600 |
| 150 | 6700 | 6800 | 4800 | 4000 | 2600 | 4800 |
| 200 | 9500 | 9300 | 6300 | 6400 | 4200 | 7200 |
| 250 | 12600 | 12200 | 8000 | 9100 | 6100 | 10200 |
| 300 | 16200 | 15500 | 9800 | 12200 | 8300 | 13400 |
| 350 | 20100 | 19300 | 11900 | 15700 | 10900 | 16900 |
| 400 | 24300 | 23400 | 14000 | 19600 | 13800 | 20900 |
| 450 | 29000 | 28000 | 16400 | 23900 | 17000 | 25200 |
| 500 | 34000 | 33000 | 18900 | 28500 | 20500 | 29800 |
| 600 | 45200 | 44300 | 24500 | 39000 | 28600 | 40100 |
| 700 | 47900 | 57200 | 30700 | 51000 | 38000 | 51800 |
| 800 | 72100 | 71800 | 37600 | 64600 | 48700 | 65000 |
| 900 | 87700 | 88100 | 45200 | 79700 | 60600 | 79600 |
| 1000 | 1E+05 | 106100 | 53500 | 93600 | 73900 | 95500 |




Nozzle loads for Equipment nozzles acc. to ASME

| DN Inch | N | | | Nm | | |
|---|---|---|---|---|---|---|
| | P | VL | VC | ML | MC | MT |
| | | V1 | V2 | M1 | M2 | |
| 2 | 517 | 697 | 517 | 369 | 295 | 590 |
| 3 | 787 | 922 | 674 | 1032 | 664 | 1328 |
| 4 | 967 | 1079 | 787 | 1549 | 1033 | 1918 |
| 6 | 1506 | 1529 | 1079 | 2950 | 1918 | 3540 |
| 8 | 2136 | 2091 | 1416 | 4720 | 3098 | 5384 |
| 10 | 2833 | 2743 | 1798 | 6712 | 4499 | 7523 |
| 12 | 3642 | 3485 | 2203 | 8998 | 6122 | 9883 |
| 14 | 4519 | 4339 | 2675 | 11580 | 8039 | 12465 |
| 16 | 5463 | 5261 | 3147 | 14456 | 10178 | 15415 |
| 18 | 6519 | 6295 | 3687 | 17628 | 12539 | 1857 |
| 20 | 7644 | 7419 | 4249 | 21020 | 15120 | 21979 |
| 24 | 10161 | 9959 | 5508 | 28765 | 21094 | 29576 |
| 28 | 13016 | 12859 | 6902 | 37616 | 28027 | 38206 |
| 32 | 16209 | 16141 | 8453 | 47646 | 35919 | 47941 |
| 36 | 19716 | 19806 | 10161 | 58784 | 44696 | 58710 |
| 40 | 23582 | 23852 | 12027 | 71027 | 54506 | 70437 |

| **Remarks** | Rev. |
|---|---|
| | |

modis

| Tag-No. | RDC11 AH310 | Data Sheet Air Cooler | | Customer | IDOSB |
|---|---|---|---|---|---|
| | | | | Project | MIDI |
| | | Description | Coke cooling water cooler | Project-No. | 1800621000043 |
| | | | | Location | Tuzla, Turkey |
| Revision | 0 | Doc.-No. | **AS.5001.432.320.0001-0** | P&ID-Number | 5001.956.320.0000-0 |

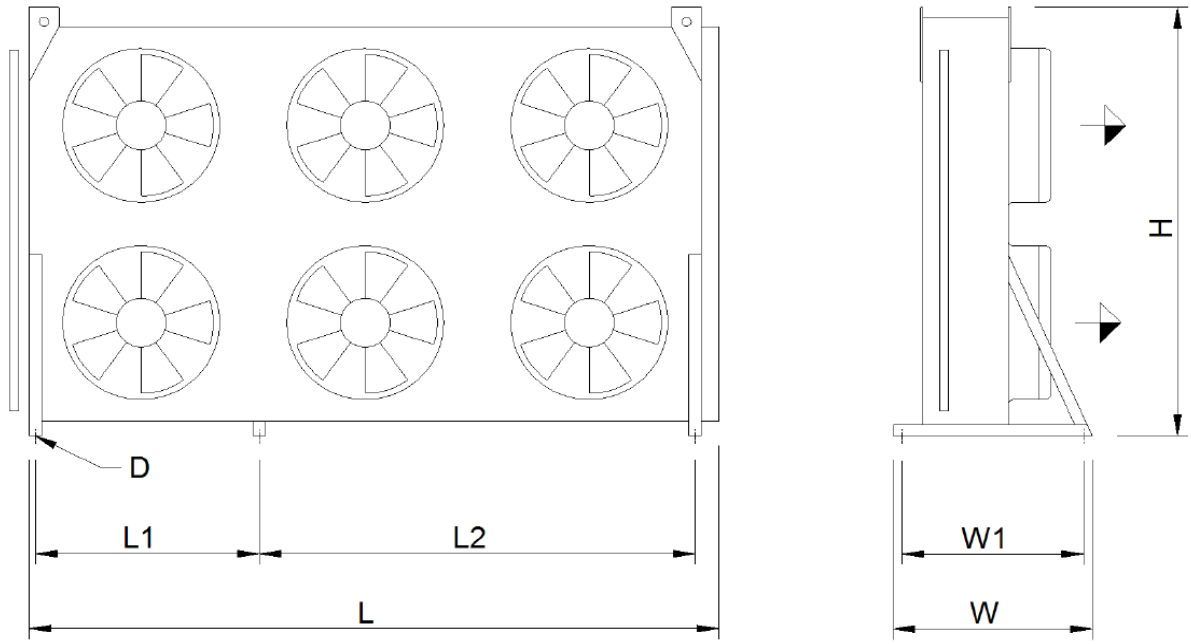
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Documentation** | | | | | | | | | |
| 2 | **Documents** | | | | included | | | | | Rev. |
| 3 | Drawings | | -times, 4 weeks after order, true to scale and as PDF-File | | | | | | | |
| 4 | Strength calculations | | -times, 4 weeks after order | | | includes proof of stability | | | | |
| 5 | Welding documentation | | -times, 4 weeks after order | | | fabrication timetable | | | | |
| 6 | All documents with TAG-No., type of equipment and project number | | | | | | | | | |
| 7 | On main drawing (title block) must be shown: TAG-No., nominal size, nominal pressure and material. In title block of | | | | | | | | | |
| 8 | associated drawings must be shown the TAG-No. | | | | | | | | | |
| 9 | Every examination in our offices requires | | | | | | weeks | | | |
| 10 | The whole documentation is to made in | | German | X | English | | | | | 0A |
| 11 | **Manufacturer documentation** | | together with equip. | | Index | X | Operating manual | | | |
| 12 | X | Hazard analysis | X | Material certificates | X | Press. Ves-sel approval | X | CE-Conformity | | 0A |
| 13 | | | | | | | | | | |
| 14 | | Drawing list | X | Drawings | | Draw. as .dwg-File | | | | |
| 15 | | | | | | | | | | |
| 16 | The documentation shall be delivered as CD-ROM. | | | | | | | | | |
| 17 | | | | | | | | | | |
| 18 | **Transportation rules** | | | | | | | | | |
| 19 | Transportation rules | acc. Incoterms 2010 | | (included in scope of supply) | | | | | | |
| 20 | Transport protection | Opening closed and weld on parts secured against transportation damage | | | | | | | | |
| 21 | Packing | Every single packed part is to be assigned with Equip.-No. | | | | | | | | |
| 22 | Designation | Equip-No. with 10 cm large letters | | | | | | | | |
| 23 | | | | | | | | | | |
| 24 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 26 | | | | | | | | | | |
| 27 | | | | | | | | | | |
| 28 | | | | | | | | | | |
| 29 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 31 | | | | | | | | | | |
| 32 | | | | | | | | | | |
| 33 | | | | | | | | | | |
| 34 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 36 | | | | | | | | | | |
| 37 | | | | | | | | | | |
| 38 | | | | | | | | | | |
| 39 | | | | | | | | | | |
| 40 | | | | | | | | | | |
| 41 | | | | | | | | | | |
| 42 | | | | | | | | | | |
| 43 | | | | | | | | | | |
| 44 | | | | | | | | | | |
| 45 | | | | | | | | | | |
| 46 | | | | | | | | | | |
| 47 | | | | | | | | | | |
| 48 | | | | | | | | | | |
| 49 | | | | | | | | | | |
| 50 | | | | | | | | | | |
| 51 | | | | | | | | | | |
| 52 | **Remarks** | | | | | | | | | Rev. |
| 53 | | | | | | | | | | |
| 54 | | | | | | | | | | |
| 55 | | | | | | | | | | |
| 56 | | | | | | | | | | |

modis

| Tag-No. | RDC11 AH310 | Data Sheet Air Cooler | | Customer | IDOSB |
|---|---|---|---|---|---|
| | | | | Project | MIDI |
| | | Description | Coke cooling water cooler | Project-No. | 1800621000043 |
| | | | | Location | Tuzla, Turkey |
| Revision | 0 | Doc.-No. | **AS.5001.432.320.0001-0** | P&ID-Number | 5001.956.320.0000-0 |

**Sketch**

| Rev. |
|---|
| 0A |




File: EMF\VerticalCompact-BCD_2x3_UNI.emf

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| L | = | 3684 mm | W | = | 800 mm | H | = | 2161 mm |
| L1 | = | 1200 mm | L2 | = | 2350 mm | W1 | = | 730 mm |
| D | = | 13 mm | | | | | | |

| **Remarks** | Rev. |
|---|---|
| | |
| | |
| | |



| **Copy for Customer** | **Revision and Transfer** |
|---|---|
| Reset or create similar dataset | |