

Air-Cooled Heat Exchanger Specification Sheet

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|----|--|-----------------|----------------------|-----------------|-----------------|-----------------------|--------------------------|-----------------|----------------------------|---------|-----|
| 1 | Client: Aggreko | | | | | | | | | | |
| 2 | Location: West Texas | | | | | | | | | | |
| 3 | Service of Unit: Cooling Oil | | | | | | | | | | |
| 4 | Item No.: 230842 | | | | | | | | | | |
| 5 | Date: 5/29/2025 | | | | | | | | | | |
| 6 | Size & Type | 18 | / | 12 | ft | Type | Forced | Number of Bays | 1 | | |
| 7 | Surf/Unit-Finned Tube | | | 10,358 | ft ² | Bare area/bundle | 643 | ft ² | Ratio (Total/ | 16.1 | |
| 8 | Heat exchanged | | | 700523 | BTU/h | | MTD, Eff | 15.9 | °F | | |
| 9 | Transfer rate | 5.04 | | Bare, Service | | 68.48 | Clean | 99.47 | BTU/(h-ft ² -F) | | |
| 10 | PERFORMANCE DATA - TUBE SIDE | | | | | | | | | | |
| 11 | Fluid Circulated | Oil | | | | In/Out | | | | | |
| 12 | Total Fluid Entering | lb/h | | 68,779 | | Density, Liq | lb/ft ³ | 48.095 | / | 48.607 | |
| 13 | | BPD | | 6,000 | | Density, Vap | lb/ft ³ | | / | | |
| 14 | Temperature | °F | 140 | / | 120 | Specific Heat, Liq | BTU/(lb-F) | 0.5148 | / | 0.5035 | |
| 15 | Liquid | lb/h | 68779 | / | 68779 | Specific Heat, Vap | BTU/(lb-F) | | / | | |
| 16 | Vapor | lb/h | 0 | / | 0 | Therm. Cond, Liq | BTU/(ft-h-F) | 0.082 | / | 0.082 | |
| 17 | Noncondensable | lb/h | 0 | / | 0 | Therm. Cond, Vap | BTU/(ft-h-F) | | / | | |
| 18 | Steam | lb/h | | / | | Freeze Point | °F | | / | | |
| 19 | Water | lb/h | | / | | Bubble / Dew point | °F | | / | | |
| 20 | Molecular wt, Vap | | | / | | Latent heat | BTU/lb | | / | | |
| 21 | Molecular wt, NC | | | / | | Inlet pressure (abs) | psi | 39.7 | | | |
| 22 | Viscosity, Liq | cp | 0.9387 | / | 1.0875 | Pres Drop, Allow/Calc | psi | 10 | / | 7.65 | |
| 23 | Viscosity, Vap | cp | | / | | Fouling resistance | ft ² -h-F/BTU | 0.001 | | | |
| 24 | PERFORMANCE DATA - AIR SIDE | | | | | | | | | | |
| 25 | Air Quantity, Total | 460,000 | lb/h | | | Altitude | | 3,311 | ft | | |
| 26 | Air Quantity/Fan | 126,657 | ft ³ /min | | | Temperature In | | 110 | °F | | |
| 27 | Static Pressure | 0.62 | inH2O | | | Temperature Out | | 116 | °F | | |
| 28 | Face Velocity | 15.7 | ft/s | Bundle velocity | 3,422 | lb/h/ft ² | Design Ambient | 110 | °F | | |
| 29 | DESIGN-MATERIALS-CONSTRUCTION | | | | | | | | | | |
| 30 | Design/Vac./Test Pres | 125 | / | / | psi | Design temperature | | 300 | °F | | |
| 31 | TUBE BUNDLE | | Header | | | Tube | | | | | |
| 32 | Size | 18 | ft | Type | Box | Material | | SS 304 | | | |
| 33 | Number/bay | 1 | | Material | SS 304 | Specifications | | | | | |
| 34 | Tube Rows | 4 | | Passes | 4 | OD | 0.625 | Min Thk. | 0.065 | in | |
| 35 | Arrangement | | | Plug Mat. | | No./Bun | 250 | Lng | 16 | ft | |
| 36 | Bundles | 1 | par | Gasket Mat. | | Pitch | 1.625 | / | 1.4073 | 30 | deg |
| 37 | Bays | 1 | par | Corr. Allow. | in | Fin | | | | | |
| 38 | Bundle frame | | | Inlet Nozzle | 1 | 3 | in | Type | L-finned | | |
| 39 | MISCELLANEOUS | | | Outlet nozzle | 1 | 3 | in | Material | Aluminum 1060 | | |
| 40 | Struct. Mount. | | | Special Nozzles | | OD | 1.5 | Tks | 0.016 | in | |
| 41 | Surf.Prepare | | | Rating | 150 | ANSI | No. | 10 | #/in | DesTemp | °F |
| 42 | Louvers | | | TI | PI | Code | ASME Code Sec VIII Div 1 | | | | |
| 43 | Vibration Switches | | | Chem Cleaning | | Stamp | Yes | Specs | | | |
| 44 | MECHANICAL EQUIPMENT | | | | | | | | | | |
| 45 | Fan,Mfr., Model | | | Driver, Type | V-belt | Speed Reducer, Type | | | | | |
| 46 | No./Bay | 1 | RPM | Mfr. | | Mfr.&Model | | | | | |
| 47 | Dia. | 10 | ft | Blade(s) | No./Bay | No./Bay | | | | | |
| 48 | Pitch | | Angle | RPM | | Rating | | | | | |
| 49 | Blade(s) | | Hub | Enclosure | | Ratio | | | | | |
| 50 | hp/Fan | 20 | hp | MinAmb | V/Phase/Hz | Support | | | | | |
| 51 | Control Action on Air Failure- | Louvers | | | | | | | | | |
| 52 | Degree Control of Outlet Process Temperature | | | | | | | | | | |
| 53 | Recirculation | | | | | Steam Coil | No | | | | |
| 54 | Plot Area | ft ² | Drawing No. | Wt.Bundle | 6,064 | Wt. Unit | 6,064 | lb | | | |
| 55 | Notes: | | | | | | | | | | |
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