

SAP in St. Leon Rot

> SAP was founded in 1972 and has become the leading provider of business software with headquarters in Walldorf (Germany) and sales and development centers in more than 50 countries. As the third-largest independent software provider, SAP develops custom-made business solutions for clients all over the world.



SAP's core business activity is selling usage rights for SAP® software solutions and related services. Furthermore, SAP provides maintenance and consulting services as well as training courses specific to these software solutions.



> The hybrid dry coolers are used for the recooling of refrigeration units as well as for free cooling. All in all, SAP is running more than 24 hybrid dry coolers with a total performance of 30 MW in St. Leon Rot.

All these coolers are equipped with a **HYBRIMATIC®** single cooler control with a data bus interface to ensure the communication with the CTM (Centralized Technical Management). This enables optimizing water and power consumption directly via the CTM.

SAP office building in St. Leon Rot

> Engineering a sustainable future

Exemplary design using the example of the SAP building in St. Leon Rot

1. Main data

Cooler type	HTK 2.4 / 10.4-2S-P2-CU-SX3
Number	2 units
Total thermal rating for this construction	2'500 kW

1.1 Product side

Cooling agent	34% ethylene glycol/water mixture
Nominal temperature of agent (in-/output)	34°C / 28°C
Total agent mass flow rate of coolers	401.8 t/h
Hydraulic circuit	Parallel, double-flow cross-counterflow

1.2 Air side

Operating condition of coolers:	Wetted cooler	Dry cooler
Fan speed	100% nominal speed	100% nominal speed
Condition of air at entry	38°C / 32%	17.6°C
corresponds to wet bulb temperature (entry)	24.5°C	not relevant
Condition of air at outlet	28.6°C / 90%	29.9°C

1.3 Total wetting water consumption for two coolers

for air condition	38°C / 32%
Quantity of evaporable water	6.42 m ³ /h

1.4 Arrangement of cooler(s)

Base area of a cooler	12 m x 2.4 m
Total height of cooler	3.7 m
Operating weight of cooler	11'920 kg

> JAEGGI – the original

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