

SMARTD Chiller Installed at Animal Service Center

Case Study: Animal Service Center

Location: Southern California

Application: Animal Service Center

Duty: Air Cooled Chiller – 170 tons

Model: SMARTD A610.2

Benefits of SMARTD:

- **Reduced Operating Costs**
- **Reduced Maintenance Costs**
- **Improved Energy Efficiency**
- **Improved Reliability**
- **Superior Performance**
- **Lowest Noise Levels**

California passed a law that prevents euthanizing stray animals detained by Animal Control services. Therefore, they must be housed and fed until a suitable home can be found.

This facility provides both veterinarian health care, indoor housing and a large exercise yard for animals. Because the law requires the animals to be housed indoors, the cost of providing reliable air conditioning at the lowest possible cost of energy and maintenance was mandatory. SMARTD was the natural choice with its unique line of air cooled chillers with industry best energy efficiencies, low sound levels, and oil-free designs, that equate to lowest maintenance costs and total cost of ownership.



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Energy - SMARTD was able to demonstrate a full load efficiency of 1.07 kw/ton and a best in class IPLV of .67 kW/ton in an oil-free design. Notably, at 25% load, energy efficiency is a remarkable .30 kW/ton. There were no competitors that could provide the low energy usage critical to this publicly funded facility to house animals.

Annual Maintenance - Was reduced to periodic electrical checks and ten-year capacitor replacements. There are no bearings to inspect every 8-10 years and no expensive compressor rebuild cycle. A reduced expense service contract was required. Coil cleaning is reduced by the adjacent walls and access to inside and outside coil surfaces is quite easy.

Reliability - The facility houses live animals and therefore equipment reliability was a key success factor. The chiller is capable of producing up to 170 tons, but the actual load was only 125 tons. This provides both better capacity redundancy and superior performance at the reduced load.

Noise - Noise was a key consideration for this facility. SMARTD air cooled chillers provide the lowest noise of any alternative. The chiller was installed in a semi-enclosed area to reduce noise and eliminate audibly disruptive fan cycling common with traditional designs. With noise levels of 70 dBA for compressors and variable-speed reduced noise fans, the result was audible noise levels that were superior to customer expectations.



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