REDESIGN AIR CONDITIONING SYSTEM AT ADMINISTRATION AND OPERATIONAL BUILDING PT.ANGKASA PURA I JUANDA INTERNATIONAL AIRPORT SURABAYA

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Abstract

Planning air conditioning system is intended to provide comfort for the occupants of an office activity on the Administration and Operations Buildings PT. Angkasa Pura I Juanda International Airport Surabaya. These conditions can be achieved by means of air supply has been conditioned by the cooling equipment into working in each room.

In determining the specifications of air conditioning equipment, then the previously performed calculations of the cooling load of each room and determine air distribution into each room. We also needs to be done calculations on the static pressure fan was installed in the AHU and the needs of the pump head and capacity for the distribution of chilled water. The design of the room temperature based on standard ASHRAE comfort zone while outside the building design is based on data from BMKG (Climatology Meteorology and Geophysics) Class 1 Juanda.

Cooling load calculation results, calculation of air capacity and the calculation of static pressure fan will be used as a reference in selecting air conditioning equipment. Whereas the calculated pump head and capacity are used as verification for the pump head and capacity are currently installed.

Keywords: cooling load, chilled water distribution pump, ducting, fan, AHU (Air Handling Unit).