

ABSTRAK

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Judul Skripsi : Analisa Performa *Condenser* Pada *Watercooled Magnetic Bearing Chiller* York Di Green Office Grha Unilever BSD
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Condenser ialah suatu alat penukar kalor yang berfungsi sebagai penukar panas. *Condenser Watercooled Chiller* ialah sebagai alat penukar panas dimana terjadi proses pendinginan Refrigerant yang disebabkan perpindahan panas pada pipa yang berisikan air. Analisa Performa adalah kegiatan menganalisa nilai asli dengan nilai desain. Analisa performa *Condenser* artinya kegiatan menganalisa apakah *Condenser* sudah beroperasi seperti seleyaknya seharusnya bekerja, apakah bekerja secara efisien, dan apakah perpindahan panas terjadi dengan baik. Dalam penelitian ini analisa performa kerja *Condenser* dilakukan pada *Chiller* di Gedung Grha Unilever. Pendekatan yang dilakukan ialah perbandingan nilai Desain dengan nilai sebelum dilakukan pembersihan dan setelahnya. Hasil dari perhitungan analisa sebelum dilakukannya pembersihan Laju aliran panasnya $14.208,52 \text{ W/m}^2$ dan dilakukan pembersihan Laju aliran panasnya ialah $16.673,518 \text{ W/m}^2$ Sehingga kenaikan kerja performa Laju aliran panasnya $2.464,998 \text{ W/m}^2$

Kata kunci: *Condenser*, *Watercooled Chiller*, Perpindahan panas, Alat penukar panas, Analisa Performa

ABSTRACT

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A condenser is a heat exchanger that functions as a heat exchanger. Condenser Watercooled Chiller is a heat exchanger where the refrigerant cooling process occurs due to heat transfer in a pipe containing water. Performance Analysis is the activity of analyzing original values with design values. Condenser performance analysis means that the activity analyzes whether the Condenser has operated as it should work, whether it works efficiently, and whether heat transfer occurs properly. In this study the analysis of Condenser work performance was carried out on the Chiller at Unilever Graha Building. The approach taken is the comparison of Design values with values before cleaning and afterwards. The results of the analysis calculation before the cleaning of the heat flow rate were $14,208.52 \text{ W} / \text{m}^2$ and cleaning of the heat flow rate was $16,673.518 \text{ W} / \text{m}^2$ So that the increase in the performance of the heat flow rate was $2,464,998 \text{ W} / \text{m}^2$

Keywords: Condenser, Watercooled Chiller, Heat Transfer, Heat exchanger, Performance Analysis