

ABSTRACT

The air instrument system or compressed air is equipped with an air dryer. Air condition instrument is pressurized, dry & clean. The unavailability of air pressure moisture indicator in UP Suralaya air dryer unit resulted in unmonitored performance of the compressed air quality unit. The purpose of this research is to convince operators about the humidity of compressed air with an additional indicator that is humidity meter.

Installation of the indicator is placed in the header of the discharge air dryer so that each unit requires the addition of one humidity meter. In addition, the installation is done in the header discharge air dryer more accurate and effective because it can measure the air humidity of air supplied from air dryer A and air dryer B.

Humidity meter is able to indicate humidity level of compressed air to be installed in air dryer unit 5-7 so that air dryer performance can always be monitored by operator.

Keywords: Air Dryer, Humidity, Humidity Meter.

INTISARI

Sistem udara *instrument* atau udara tekan dilengkapi dengan pengering udara (*air dryer*). Syarat udara *instrument* yaitu bertekanan, kering & bersih. Tidak tersedianya indikator tingkat kelembaban udara tekan di unit *air dryer* UP Suralaya berakibat tidak termonitor kinerja unit kualitas udara tekan tersebut. Tujuan dari penelitian ini untuk meyakinkan operator tentang kelembaban udara tekan dengan indikator tambahan yaitu *humidity meter*.

Pemasangan indikator diletakkan di *header discharge air dryer* sehingga setiap masing-masing unit membutuhkan penambahan satu buah *humidity meter*. Selain itu, pemasangan dilakukan di *header discharge air dryer* lebih akurat dan efektif karena dapat mengukur kelembaban udara baik udara yang disuplai dari *air dryer* A maupun *air dryer* B.

Humidity meter mampu mengindikasikan tingkat kelembaban udara tekan penting untuk dipasang di *air dryer* unit 5-7 sehingga performa *air dryer* dapat senantiasa dimonitor oleh operator.

Kata kunci : *Air Dryer*, Kelembaban Udara, *Humidity Meter*.