

## INTISARI

### **PENGARUH LETAK *TAPPING PRESSURE* DAN VARIASI SUHU RUANGAN PADA PENGUJIAN METER GAS TURBIN TIPE G250**

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Di jaman yang semakin modern ini, kebutuhan gas sebagai bahan bakar pada kegiatan industry akan semakin meningkat. Berkaitan dengan kebutuhan gas tersebut, bermunculan tempat-tempat serah terima gas. Distribusi gas dilakukan menggunakan pipa penyalur pada titik peyerahan gas digunakan meter gas idustri.meter gas industri yang banyak digunakan adalah meter gas turbin. Dengan banyaknya penggunaan meter gas turbin dalam serah terima tersebut di atas, maka kita perlu memikirkan adanya jaminan kebenaran pengukuran yang disebut error pengukuran.

Metode yang digunakan yaitu sesuai dengan OIML R 137-1 & 2 Edition 2012 dan SK DJPDN No 30/PDN/KEP/3/2010 mengenai syarat teknis meter gas *rotary piston* dan turbin. Master meter yaitu GM2500 dengan *flowrate* maksimum 2500 m<sup>3</sup>/h dimana didalamnya menggunakan master meter G65, G400 dan G650. Titik pengujian meter gas ditentukan sebanyak 6 titik agar mengetahui kenaikan error secara bertahap.

Dari penelitian ini, nilai error terbesar yaitu pada *flowrate* 400 m<sup>3</sup>/h di kondisi 3 yaitu suhu panas dan posisi *tapping pressure* di *upstream* dengan nilai error mencapai 2,412 %. Letak *tapping pressure* memiliki pengaruh besar terhadap pengukuran error, sedangkan variasi suhu hanya sedikit berpengaruh pada pengujian tera ulang tersebut.

**Kata Kunci : *meter gas turbin, suhu, tapping presssure***

## ABSTRACT

### THE EFFECT OF *TAPPING PRESSURE* LOCATION AND VARIETY OF ROOM TEMPERATURE ON TESTING TURBINE GAS METER G250

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In this increasingly modern era, the need for gas as fuel in industrial activities will also increase. In connection with the gas requirement, emerging places of gas handover. Distribution of gas is done by channeling pipes at the point of gas deployment used gas meter industrial gas. Industrial gas that is widely used is turbine gas meter. With the many uses of turbine gas meters in the handover mentioned above, then we need to think of a guarantee of correctness measurement called measurement error.

The method used is in accordance with OIML R 137-1 & 2 Edition 2012 and SK DJPDN No. 30/PDN/KEP/3/2010 regarding the technical requirements of rotary piston and turbine gas meters. Master meter is GM2500 with a maximum *flowrate* of 2500 m<sup>3</sup> / h which inside uses a master meter G65, G400 and G650. Gas meter testing point is determined as 6 points to know the increase of error gradually.

From this research, the biggest error value is at *flowrate* 400 m<sup>3</sup> / h in condition 3 that is hot temperature and *tapping pressure* position in *upstream* with error value reach 2,412%. The location of the *tapping pressure* has a large influence on the measurement error, while the temperature variation has little effect on the re-testing.

**Keyword : *tapping pressure, temperature, turbine gas meter***