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MICRO BUBBLE GENERATOR TYPE SPHERICAL BALL IN FLOWING WATER TUBE

ABSTRACT

Research about characteristic of fluid flow at Micro Bubble generator type of Spherical Ball in Flowing Water Tube have been done.

Intention of this research is to comprehend the variable of pressure degradation (pressure drop), charge the liquid fluid flow, charge the gas fluid sipped and also its relation with the size of bubble formed.

Set the up of research appliance in the form of water loop by turbular bubble generator have diameter 28 mm which have been attached by the ball have diameter 26 mm in the middle of the channel.

After attempt is already done, the result is increase charge of water is proportional with the level of pressure drop between up stream area and down stream area, and proportional also with the increase charge of the sipped gas.

Key Words : Micro bubble; pressure drop; charge of water; charge of gas; size of bubble

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ABSTRAK

Penelitian mengenai karakteristik aliran fluida pada *Micro Bubble generator* tipe *Spherical Ball in Flowing Water Tube* telah dilakukan.

Tujuan dari penelitian ini adalah untuk memahami variabel-variabel penurunan tekanan (*pressure drop*), debit aliran fluida cair, debit aliran fuida gas yang terhisap serta hubungannya dengan ukuran *bubble* yang terbentuk.

Set up alat penelitian berupa *water loop* dengan bubble generator berbentuk pipa berdiameter 28 mm yang telah dipasangi bola berdiameter 26 mm ditengah saluran pipa tersebut.

Setelah percobaan dilakukan, hasil yang didapatkan adalah kenaikan debit air sebanding dengan besarnya jatuh tekanan antara daerah *up stream* dengan daerah *down stream*, dan sebanding pula dengan kenaikan debit udara (gas) yang terhisap.

Kata kunci : *Micro bubble*; pressure drop; debit air; debit udara; ukuran bubble