

# Accepted Manuscript

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Ali Daşdemir, Mustafa Ertürk, Ali Keçebaş, Cihan Demircan

PII: S0360-5442(17)30132-9

DOI: [10.1016/j.energy.2017.01.125](https://doi.org/10.1016/j.energy.2017.01.125)

Reference: EGY 10260

To appear in: *Energy*

Received Date: 19 October 2016

Revised Date: 3 January 2017

Accepted Date: 24 January 2017

Please cite this article as: Daşdemir A, Ertürk M, Keçebaş A, Demircan C, Effects of air gap on insulation thickness and life cycle costs for different pipe diameters in pipeline, *Energy* (2017), doi: 10.1016/j.energy.2017.01.125.

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# Effects of air gap on insulation thickness and life cycle costs for different pipe diameters in pipeline

Ali Daşdemir<sup>1,2</sup>, Mustafa Ertürk<sup>3</sup>, Ali Keçebaş<sup>4,\*</sup>, Cihan Demircan<sup>5</sup>

<sup>1</sup> *Department of Installation Technology and Air-conditioning, Köyceğiz Anatolian Technical High School, Anatolian Vocational High School, Technical High School, Vocational and Technical Education Center, 48800 Köyceğiz, Muğla, Turkey*

<sup>2</sup> *Department of Energy, Graduate School of Natural and Applied Science, Muğla Sıtkı Koçman University, 48000 Muğla, Turkey*

<sup>3</sup> *Department of Electricity and Energy, Balıkesir Vocational School, Balıkesir University, 10145 Balıkesir, Turkey*

<sup>4</sup> *Department of Energy Systems Engineering, Technology Faculty, Muğla Sıtkı Koçman University, 48000 Muğla, Turkey*

<sup>5</sup> *Department of Energy Systems Engineering, Graduate School of Natural and Applied Sciences, Süleyman Demirel University, 32260 Isparta, Turkey*

\* Corresponding Author

[alikecebas@gmail.com](mailto:alikecebas@gmail.com), [alikecebas@mu.edu.tr](mailto:alikecebas@mu.edu.tr) (e-mails)

**Keywords:** Piping system; building pipe; thermal insulation; air gap; optimum insulation thickness; life cycle costs.

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