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ВНЕДРЕНИЕ ПРЕДИЗОЛИРОВАННЫХ ТРУБ КАК СПОСОБ
СНИЖЕНИЯ ЗАТРАТ В СТРОИТЕЛЬСТВЕ И ЭНЕРГЕТИКЕ

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Utility payments are growing year by year. But with the introduction of new technologies we can reduce them. Today pre-insulated pipes are widely used in district heating networks.

The proposed construction of the “tube in tube” has presented itself in a rather reliable and effective light. One of the main tasks for power engineers and district heating companies is energy saving, because more than 50% of the energy loss occurs on heating mains on account of unreliable thermal insulation of pipes. Using these pre-insulated pipes in building and energy sector solves this problem in the best possible way.

Steel pre-insulated pipes have “sandwich” construction. The space between the steel and plastic is filled with polyurethane foam, which provides reliable insulation. The outer polyethylene or galvanized sheath in the pre-insulated pipes acts not only waterproofing, but also protects the layer of polyurethane foam insulation from mechanical damage.

The advantages of pre-insulated pipes are the following: (1) system of operational remote control significantly increases reliability and reduces the costs of repair of heat; (2) usage period constitutes 30 years (regular, non-insulated pipes are used for 10–15 years); (3) heat losses by using pre-insulated pipes account for only 2 percent but by using non-insulated pipes – 25 percent; (4) construction terms are reduced by 2–3 times as laying of such pipelines does not require wells and channels.

It is also worth mentioning that not only fabricated pre-insulated pipes and fittings, but all the materials, which are used in the production, pass technical quality control. We understand that the economic feasibility of district heating systems of big cities is largely determined by pipeline longevity and quality of insulation.

Today we can say with full confidence that using of such pipes is the real way to save energy, which is confirmed by the successful experience of leading companies in the country. It should be noted that using of such pipes reduces heat loss factor by 8–10 times if compared to mineral wool isolation (from 30–40% to 2–4%) and it will significantly reduce fuel, water and electricity consumption, capital costs are reduced by 15–30%, operational costs by up to 9 times and repair costs by up to 3 times.

The market pays more attention to the merits of such isolation, which is confirmed by achievements of the leading economic managers.