Title: EL AIR CONSUMPTION COSTS

Based on a power cost of £0.045 per kWh, the annual compressed air cost for a typical plant demand of 500 l/s (1000 cfm) at 7 barg, delivered by a 165 kW compressor operating at 75% on-load, is £14,900 when operating 48 hours per week. *

The quiescent air consumption of an EL Positioner does not exceed 0.283 l/s.

The cost of continuous quiescent EL air consumption may be estimated as follows:

$$\frac{£14,900}{(500 \text{ l/s} \times 0.75)} \times 0.283 \text{ l/s} = £11.24 \text{ p.a.}$$

If operated in the quiescent state continuously 24 hours per day throughout the year, the cost rises to £39.36 p.a.

Since the purpose of positioners is to modulate, it is unlikely that units will spend more than a fraction of their operating time in the quiescent state.

When modulating, all positioner devices consume the air necessary to move the actuator and quiescent air usage is irrelevant.

* Reference 'Compressed Air Costs'
DoE Good Practice Guide No. 126
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