

PNEUMATIC EXPANSION COMPENSATION FOR AIR-OPERATED DOUBLE-DIAPHRAGM PUMPS



TECHNICAL BACKGROUND

Temperature changes can cause thermal expansion to occur in air-operated double-diaphragm (AODD) pump units engineered with plastic housings and metallic connecting elements. While this phenomenon is negligible for pumps that operate in a narrow temperature range, operating in wider temperature ranges – including many PTFE pump standard applications – can increase the effects of thermal expansion and lower the tension of connecting elements. Ultimately, this can result in leaks at the pump joints.

THE SOLUTION

Pump tolerance against temperature changes has significantly increased thanks to the reliable ring-tightening structure of Almatec AODD pumps. However, this ring-tightening structure alone cannot overcome the effects of thermal expansion entirely. Therefore, Almatec has introduced an “Expansion Compensation” option for its line of E-Series AODD pumps (code EC for E-Series pump sizes 15/25/40/50). By adding a pneumatic spring to the housing bolts, this new system creates a buffer between the bolts and the housing that ensures correct housing bolt tension. To function properly, this system needs to be connected to driving air at a maximum pressure that holds the pump under tension 24/7.

YOUR BENEFIT

- Enhances the containment of dangerous liquids in demanding applications at changing temperatures
- Simplifies maintenance by severely reducing the need to check housing bolt tension
- Eliminates the need to check and retighten the housing bolts during standard applications, monitoring intervals substantially increased

E-SERIES PUMP SIZES	E 15	E 25	E 40	E 50
Unit Extension - mm (in)	60 (2.4)	65 (2.6)	80 (3.2)	95 (3.7)
Air Connection, BSP	R ¼"	R ¼"	R ¼"	R ¼"
Material	PA Conductive			
Option Code	EC			



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ALM-21000-F-01

