

SEP Compressors: LPC & FM Guidelines

We describe most of our air compressors for fire sprinkler systems as 'LPC Compressors' and 'designed to comply with LPC/EN12845 guidelines'.

Customers often ask 'What does this mean?' especially in the context of 'LPC approval' – which is neither given nor required for this component of a dry system (which includes alternate, tail-end and pre-action types). This information sheet is intended to address these questions.

The (relatively small number of) LPC requirements under this category of fire sprinkler are covered by TB208 (best practice but not mandatory) and also EN12845 (11.2). The key requirements are noted below, along with a comment as to how these are addressed by the key models we offer:

LPC Requirement: (extracts from full wording)	How we meet it:	Compressor model:		
		Non-receiver	+ receiver	+ receiver + integrated A.M.D.
<i>Installations...charged with clean dry air to a pressure [determined by] the manufacturer of the alarm valve, which shall not >4 bar for any stand-by condition</i>	All of our compressors are factory set to cut out at 3.5 bar, unless specifically requested otherwise (or adjusted post-installation)	✓	✓	✓
<i>Pipework shall be fitted with a:</i>	Standard on all units, rated to suit factory-set pressure	✓	✓	✓
• pressure relief valve		✓	✓	✓
• non-return valve	Standard on all units	✓	✓	✓
• stop valve	Not built-in, as varies by installation; however, available option	Opt	Opt	Opt
• suitably sized restrictor	Available separately, or included in integrated AMD	X	X	✓
• bypass with stop valve	Included in integrated AMD	X	X	✓
<i>The air supply PRV...not more than 0.5 bar > dry alarm valve</i>	SEP PRV is set to protect our unit only unless customer requests	Opt	Opt	Opt
<i>When installation valve primed... possible to pressurise...in 1 hour</i>	Any customer seeking advice (must have pressure/volume data) is given full assistance with appropriate sizing	✓	✓	✓
<i>Air compressors shall be equipped with automatic off-loading devices</i>	Standard on all units (mechanical or electrical depending on model of pressure switch)	✓	✓	✓
<i>BSEN12845 also demands that the maximum time between sprinkler activation and water emission is 1 minute</i>	'On-delay' timer stops immediate compressor cut-in on pressure drop (3-ph supply must have neutral). In top-up situations, the short delay is irrelevant; in live situations, prevents compressor counteracting the pressure drop required for rapid water emission	✓	✓	✓
<i>FM require the compressor to have an air receiver</i>	All of our receiver models include a 24L air receiver as standard	X	✓	✓

We build our compressors by hand with utmost care, using only the highest quality and reliability-proven components...the pumps themselves, Danfoss pressure switches and electrics, pressure relief valves.

Please see www.firesprinkler.co.uk, email sales@saleengineering.co.uk or call +44 161 428 1180.