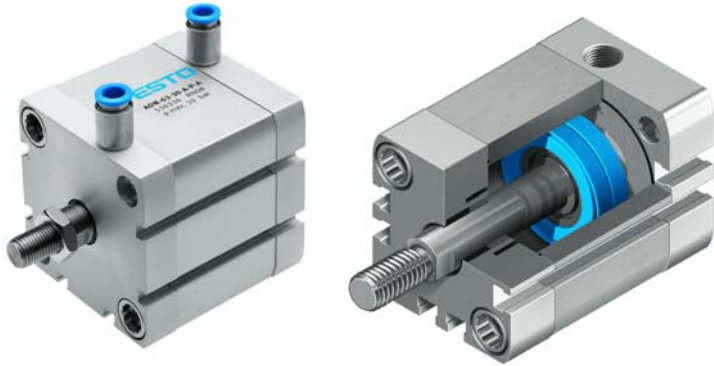


**[Subject]** NEW ISO Compact Pneumatic Cylinders  
**[Prepared by]** Application Engineering

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FIRST COMPLETE ISO 21287:  
COMPATIBLE PNEUMATIC RANGE DELIVERS COMPACT PLATFORM FOR AUTOMATION PROGRESS



- Festo is the first to offer full range of the new ISO 21287 sizes

Festo launches its AEN and ADN ranges of single- and double-acting cylinders conforming to the new ISO 21287 standard for compact-design pneumatics.

The introduction provides the automation industry with the first complete range of ISO 21287 cylinder body diameters - spanning 12 to 100 mm. It gives machine builders a platform to transform equipment designs, and meet the demands of lead users such as automotive manufacturers.

"Compact cylinders have consistently been one of the most dynamic sectors of the pneumatic market since the concept was first introduced by Festo in the early 80s. They now account for around a third of cylinder sales," says Steve Sands, marketing manager for Festo. "The new standard will fuel further growth, opening up space-saving design options for the many automation builders who prefer to use industry-standard cylinders".

ISO 21287 provides a standard for the key interface dimensions of the 'compact' cylinder portion of the pneumatics market - components that typically require half the installation room of a standard profile ISO 6431 alternative. The specification provides machine builders and end users with an assurance of multiple sourcing and interchangeability.

With this launch, Festo becomes the first pneumatics vendor to offer the full range of cylinder body diameters - with 10 choices spanning 12 to 100 mm. Its AEN and ADN ranges conform to the dimensional standards of ISO 21287, but the commonality stops there. Festo has developed new technology for its launch that overcomes limitations normally associated with smaller-dimensioned cylinders. It boosts the performance of the bearings, combating the transverse forces that can accelerate seal wear on compact cylinders, providing a further stimulus for market growth on top of that provided by the standard's introduction.

Inside each compact cylinder is a patented new piston design dubbed '3K'. It provides improved cushioning at the end of strokes to support higher cycle times, copes with the wear that can be caused by high side forces on the actuating rod - a common scenario in pneumatics automation systems - and provides a highly stable and low friction bearing to enhance both actuation accuracy and the life expectancy of the cylinder.

Based on the use of three polymers, Festo 3K technology is a major step forward in endowing compact cylinders with an overall performance approaching that of their ISO 6431 counterparts. As with standard profile cylinders from Festo, users of short-stroke AEN and ADN components can expect extended lifetimes of more than 6,000km of movement, or over 20 million operating cycles.

Machine builders can select stroke lengths from 1 to 25mm for the single-acting AEN range. For double-acting ADN cylinders, the standard range offers 10 choices of stroke length from 5 to 80mm, or strokes of up to 500mm for cylinders made to order - long travels made possible by the new Festo piston and bearing technology.

## *Allied Automation: Press Release*

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In addition to covering the cylinder sizes defined by the ISO 21287 standard, Festo offers a number of larger diameter options with the same family design characteristics. Automation builders will also benefit from the industrial design of the new Festo components. The stylish and clean-line exterior surface incorporates features that greatly extend the mounting and accessory options open to OEMs, supporting an enormous spread of applications. At launch, Festo offers more than 20 peripheral parts to adapt compact cylinders for specific roles.

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