

Product Sustainability Fact Sheet

Motion Terminal VTEM



General Information: Sustainability in Product Development

As an independent family-owned company, Festo has always adopted a long-term perspective and takes responsibility for current and future generations. Sustainability is therefore an integral part of our corporate philosophy and is consistently embedded in the development of all our products. Sustainability criteria have been incorporated into the product development process. Our goal is to minimize environmental impacts across the entire lifecycle, including manufacturing, sourcing, use, and end-of-life cycle of our products. We also place strong emphasis on avoiding critical and environmentally harmful substances.

Products with particularly outstanding sustainability performance are highlighted within Festo's Sustainability Portfolio basket. This designation is based on three categories:

Sustainable in Manufacturing

Products that demonstrate sustainability benefits through compact design, reduced material usage, or the use of alternative materials with a lower carbon footprint, compared with the relevant ISO standard, a predecessor product, or a comparable competitor product.

Sustainable in Operation

Products that reduce energy and resource consumption during use, for example by lowering the demand for electrical energy, compressed air, or valuable operating media such as gases and liquids. In this assessment, Festo considers not only the individual component but also its contribution to the efficiency of the overall application.

Sustainable at End of Life

Products designed to reduce resource consumption by keeping materials, components, and products in the value chain for as long as possible through reuse, repair, refurbishment, and recycling principles.

Product-Specific Sustainability Description

Motion Terminal VTEM with Energy Saving Apps

Sustainability Category: Sustainable operation thanks to efficient control

The VTEM Motion Terminal supports sustainable automation by substituting multiple pneumatic functions in a single intelligent device with software, reducing component count and material usage. Its adaptive valve technology enables optimized compressed air consumption and energy-efficient machine operation. By shortening cycle times, increasing process flexibility, and reducing resource consumption, VTEM helps lower both operating costs and environmental impact.

VTEM offers several apps to tune the performance of the overall application to the customers' needs. With a highly flexible real-time pressure adjustment, depending on application details, VTEM can reduce energy consumption in pneumatic applications by 70% and more. In a representative example of a vertical machining door with a stroke length of 1050 mm, and 16 kg vertical load, VTEM allows the use of a smaller cylinder size (40 instead of 50) and in parallel allows a faster travel time. This represents a reduction in positioning time of 42% and a reduction in air consumption of -76%.