

FEDDEM Automatic AirBlade

The problem of beard formation: A challenge in extrusion

A common problem with twin-screw extrusion is the so-called beard formation. Product residues accumulate at the outlet nozzles of the extruder, which leads to the formation of "beards". This phenomenon often occurs with more complex compounds with a high filler content. Without suitable measures, this can lead to strand breakage, which affects both productivity and throughput rates. In addition, residues that are pulled along by the polymer strand can severely impair the appearance and mechanical properties of the end products.

The FEDDEM Automatic AirBlade:

The innovative solution against beard formation

FEDDEM has developed the Automatic AirBlade (FAA) to overcome the challenges of beard formation in plastics extrusion. The FAA solves these problems by using a targeted stream of hot air to efficiently remove residues. The FAA was developed in close co-operation with one of our customers and tested under real production conditions to ensure that it meets the highest requirements.

Our product innovation effectively minimises the negative effects of product residues at the nozzle outlet, ensuring improved productivity and product quality.



Efficiency and innovation: The advantages of the FAA in detail

Mobility and flexibility:

The FAA adapts to your production

The FEDDEM Automatic AirBlade (FAA) impresses with its exceptional mobility and flexibility. Thanks to its smooth-running castors, the device can be positioned effortlessly and precisely in any production environment. The height can be adjusted using a hydraulic cylinder and handwheel, allowing precise adaptation to different strand outlet heights. The adjustable slotted nozzle enables flexible changes to the flow angle.

Thanks to the independent control and power supply via a CEE plug, the FAA can be used flexibly and can be easily integrated into almost any production situation.

Powerful and intuitive:

Efficiency through simple handling

The FAA is not only powerful, but also intuitive to operate. A modern 4-inch touch display makes it quick and easy to set the desired nozzle outlet temperature and air volume. The intelligent control of the heating and blower output automatically adapts to production conditions by monitoring the position of the appliance between the production position and the home position. A sophisticated deflection mechanism ensures that the slotted nozzle is retracted out of the operator's working area in the event of a strand breakage, providing additional safety. In addition, a 2 kW fan and a 9 kW air heating element minimise heating times and ensure an effective cleaning effect.



Cost efficiency and durability: An economically attractive product

The FAA is characterised by its remarkable cost efficiency. Compared to conventional compressed air systems, the frequency-controlled blower significantly reduces operating costs. The acquisition costs remain manageable thanks to a high proportion of standard solutions, while the rapid amortisation due to the minimisation of strand breaks/contaminations ensures a high level of economic efficiency. The FAA is also designed for a durability: High-quality, industry-standard components guarantee low maintenance requirements and therefore help to reduce overall operating costs.

Modern design meets functionality: The FAA in your production

The aesthetically pleasing design of the FEDDEM Automatic AirBlade blends seamlessly into modern production environments. The functional design enables easy accessibility and maintainability, making it not only visually appealing but also practical. The FAA combines technological innovation with practical applicability and economic efficiency to meet the requirements of modern production processes.