



# MISTRAL Air Technology

Effective surface cleaning with blast air



## Airknife

# MISTRAL ALU

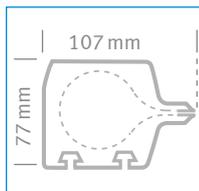
- The Universal Product
- Cleaning, drying, separating and cooling with blown air
- Length up to 6000 mm
- Air production: Powerful, safe and especially quiet



Length: up to 6000 mm

### When it comes to removing dust, chips, processing residues from surfaces...

... our **MISTRAL** series Airknives are the most effective solutions. They can be designed individually, require very little space even with the blower attached, and can be easily installed as components as well as integrated into application-specific systems. These highly effective solutions amortize themselves after a very short time. The blast air is generated by high-quality side channel blowers in various sizes and for a wide range of requirements.

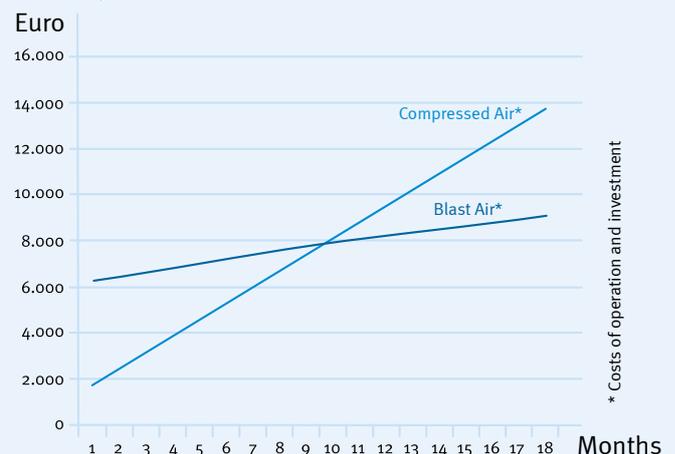


Drying after the can cleaning →

## Technical Data MISTRAL ALU

Housing material:	Anodized aluminium
Lid:	V2A 1.4301
Pipe:	V2A 1.4301
Dimension:	107 × 77 mm
Mounting option:	2 T-slots
Nozzle slot:	Adjustable from 0.5 – 3.0 mm
Air connection:	Standard: L = left D = 60.3 mm Optional: R = right D = 60.3 mm G = front D = 60.3 mm

## Energy conservation



Airknife

## MISTRAL CUSTOMISED DESIGNS

- Individual solutions on request
- Flexibility for production lines
- Adapted to your applications
- Can be integrated into bespoke plant



### Made to measure solutions for customer-specific applications.

Our products in the blast air range are highly versatile. Should none of our standard appliances suit your specific application and you require individual dimensions, air connections or similar, we will be happy to create bespoke solutions for your tasks – simply contact us to discuss your needs. Our experience is extensive and covers a wide range of applications so you can be sure that we can find the perfect solution for you.

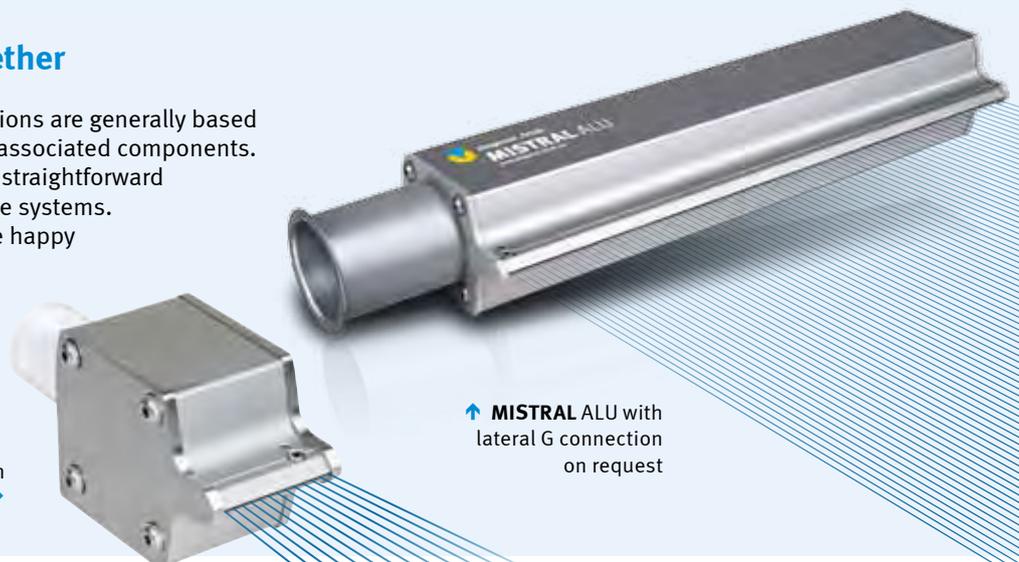
↑ Customised design with „Jacob“ pipe air connection



Boxes dried with additional single point nozzle →

### Finding the answer together

Ziegner + Frick customised solutions are generally based on proven standard designs and associated components. They represent an affordable and straightforward alternative to more costly bespoke systems. Naturally, our engineers would be happy to develop individual solutions together with you.



Exceptional slimline design for tight spaces →

↑ MISTRAL ALU with lateral G connection on request

Airknife

# MISTRAL SS1 / SS1D

- Acid and base resistant
- Cleaning, drying, separating and cooling with blown air
- Delta design for tight spaces



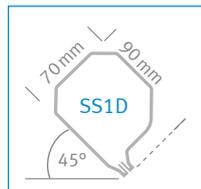
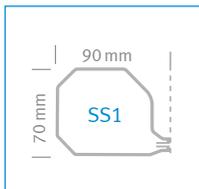
Version  
**MISTRAL SS1** ↑



Version  
**MISTRAL SS1D** ↓

## Highly effective and economical solution.

Ziegner + Frick air knives ensure that cleaning and drying is evenly carried out, this is necessary in the processing of food products for example. They are most often deployed in processes that involve high temperatures, oils, acids or lyes. With its space-saving angular shape, the highly practical delta design is ideal for areas where space is at a premium.



Drying after bottle cleaning (SS1) →



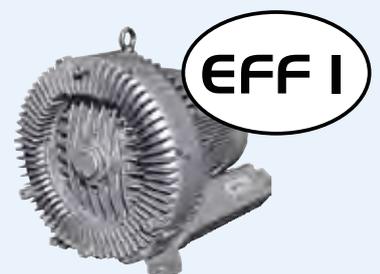
## Technical Data MISTRAL SS1 / SS1D

Material:	V2A 1.4301
Dimension:	90 x 70 mm
Mounting option:	Welding plate with 1 x M8 threading with 2 x M6 threading
Nozzle slot:	Adjustable from 0.5 – 5.0 mm
Air connection:	Standard: L=left D=60.3 mm Optional: R=right D=60.3 mm

## Low energy consumption

The side channel blowers are supplied with IE2 motors as standard. A special series of side channel blowers in energy efficiency class IE3 is also available.

The motors in energy efficiency class IE2 and IE3 are environmentally responsible and provide significant cost savings as well.



Airknife

# MISTRAL SS2 / SS2L

- Acid and base resistant
- Cleaning, drying, separating and cooling with blown air
- Version SS2L with long nozzle for hard-to-reach areas



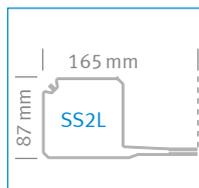
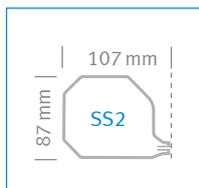
Version  
**MISTRAL SS2** ↑



Version  
**MISTRAL SS2L** ↑

## Optimal cleaning results with Ziegler + Frick air knives.

When the focus is on physical purity in packing processes, the uniform drying of foods, or when parts, components and surfaces must be freed from acids, bases or oils etc. in the plastic or metal machining, the Ziegler + Frick air knives are able to perform effectively and economically to the highest degree.



Drying / cleaning from the bottom on a roller conveyor (SS2L) ➔



## Technical Data MISTRAL SS2 / SS2L

Material:	V4A 1.4571
Dimension:	107 x 87 mm (SS2) 165 x 87 mm (SS2L)
Mounting option:	Welding plate with 1xM8 threading with 2xM6 threading
Nozzle slot:	Adjustable from 0.5 – 5.0 mm
Air connection:	Standard: L= left D=60.3 mm Optional: R= right D=60.3 mm H= rear D=60.3 mm E= top D=60.3 mm

## Application examples

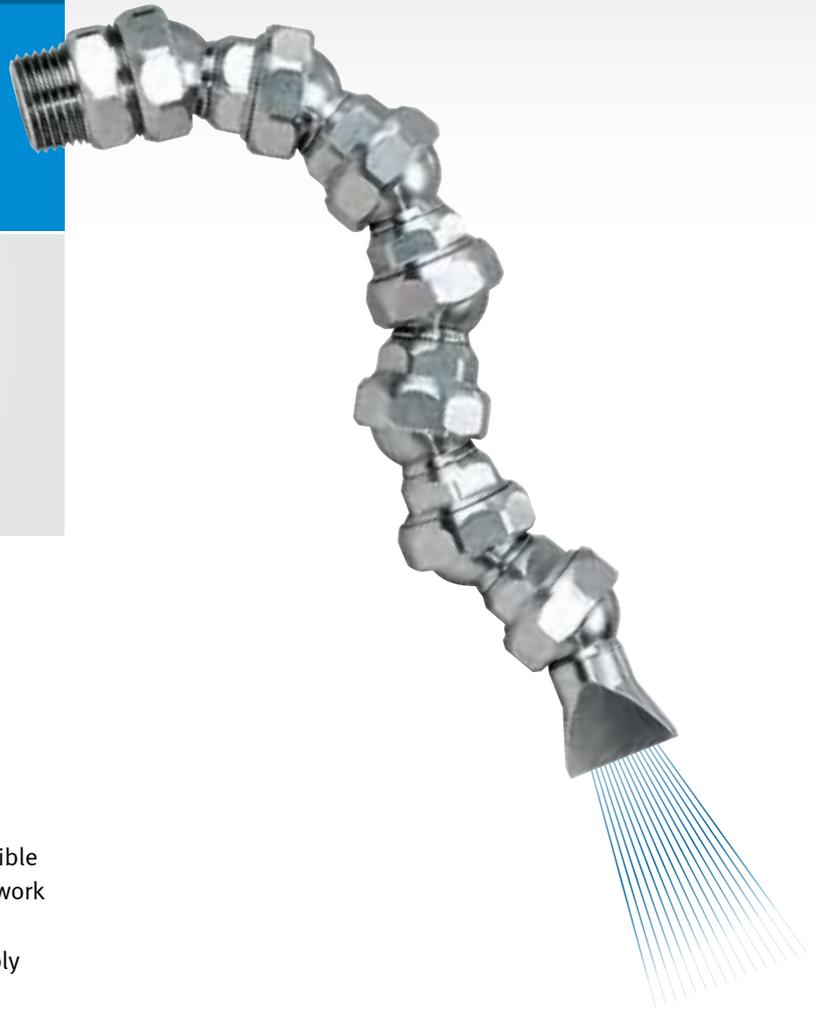
- Drying** removing water / liquids e.g. from cans, bottles, boxes, etc.
- Cooling** plastic products, metal parts, etc
- Cleaning** removing production residues / chipping
- Blowing out and off** dust removal during packaging processes.



## Airknife

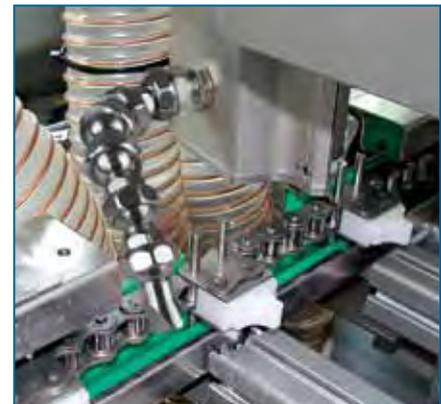
# MISTRAL FLEX SS

- Spot-blowing in very small spaces
- Flexibly adjustable through a goose neck
- Interchangeable attachments
- Cleaning, drying, separating and cooling with blown air



### Ideal for effective localised cleaning in hard-to-reach gaps.

In many situations, a standardized cleaning and drying system cannot be utilized due to inaccessible areas and unusual spatial conditions within the work processes. Ziegner + Frick has now developed a solution to target these problems. With the flexibly adjustable goose neck and the interchangeable attachments of the **MISTRAL FLEX SS**, the cleaning of products and the point-accurate removal of processing residues with blown air is now even possible in nearly inaccessible spaces.



Drying of edges / boxes →

## Technical Data **MISTRAL FLEX SS**

Material:	VA stainless steel
Length:	To customer specification
Flat nozzle:	VA stainless steel 50 x 2.0 mm 20 x 2.5 mm
Round nozzle:	VA stainless steel 6.5 mm
Air connection:	Standard: L = left, D = 32 mm Optional: R = right, D = 32 mm
Mounting option:	1 X T-slot

## Air production: Powerful, safe and especially quiet

Air production with quality side-channel compressors in many sizes and for a broad variety of requirements: flexible and powerful even in areas where up till now more sensitive dry-running rotation-slide compressors or rotary blowers (with a high noise level!) were more likely to be used.



## Airknife

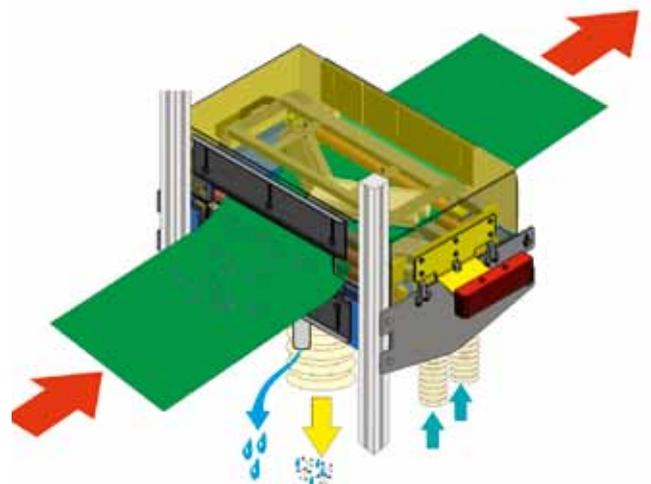
# MISTRAL SYSTEM SS1D

- Cleaning, drying and cooling
- Optional extractor
- Drip pan with integral drain
- Optimal cleaning results



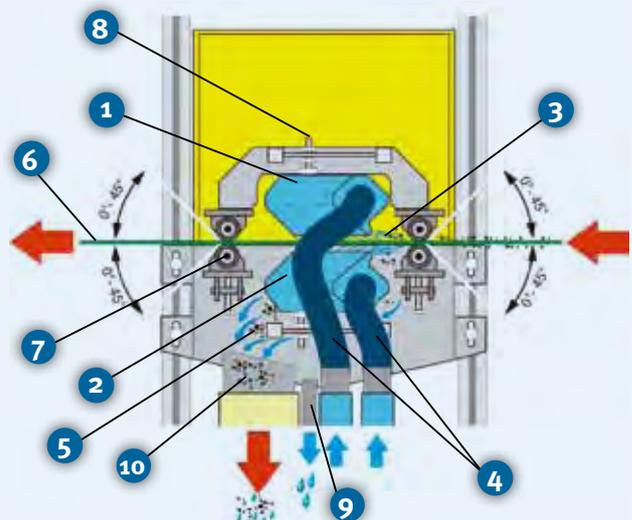
### Effective cleaning and drying on both sides with blast air.

This blower module uses a concentrated air jet to remove particles (water, dust etc.) from work pieces. The particles are blown away at an angle of 30 degrees to the left and right, above and below, and against the direction of travel. The blown-off particles are removed through a drain in the drip pan. Subject to version, the system may also be equipped with an extractor connection and adjustable feed and discharge rollers.



### Mode of operation

- 1 Blow-off profile top (here: Delta)
- 2 Blow-off profile bottom (here: Delta)
- 3 Nozzle slots with air jet
- 4 Air hoses
- 5 Removed particles
- 6 Workpiece / product
- 7 Rollers (here: adjustable)
- 8 Setting screws, adjustment upper blow-off profile
- 9 Drip-off trough drain
- 10 Suction (depending on version)





Discover more about these subjects

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at **[www.ziegner-frick.de](http://www.ziegner-frick.de)** or simply call us.

We look forward to hearing from you.

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