

Air Knife Drying System

CONTENTS

01

**Standard
Accessories**

02

Application

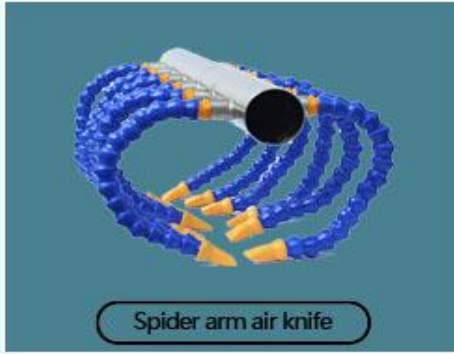
03

Choice

04

Installation

Air Knife Drying System





01

**Standard
Accessories**

01



Standard Accessories -- Blower



High Pressure Blower



High Speed Centrifugal Blower



Direct Drive Blower

01 Standard Accessories -- Blower (High Pressure Blower)



Recommend Model:

- 2MV 610 H16, 2.2KW
- 2MV 710 H16, 2.2KW
- 2MV 710 H26, 3.0KW
- 2MV 730 H26, 3.0KW
- 2MV 810 H17, 5.5KW
- 2MV 810 H27, 7.5KW
- 2MV 830 H27, 7.5KW

Standard Accessories -- Blower (High Speed Centrifugal Blower)



Single Stage Blower



Double Stage Blower

Introduce

The high-speed centrifugal blower is designed on the basis of the advanced hydrodynamic principle in the world and combined with the development of aircraft turbine power system.

It has the characteristics of ultra-low energy consumption, ultra-high wind pressure and ultra-large flow rate.

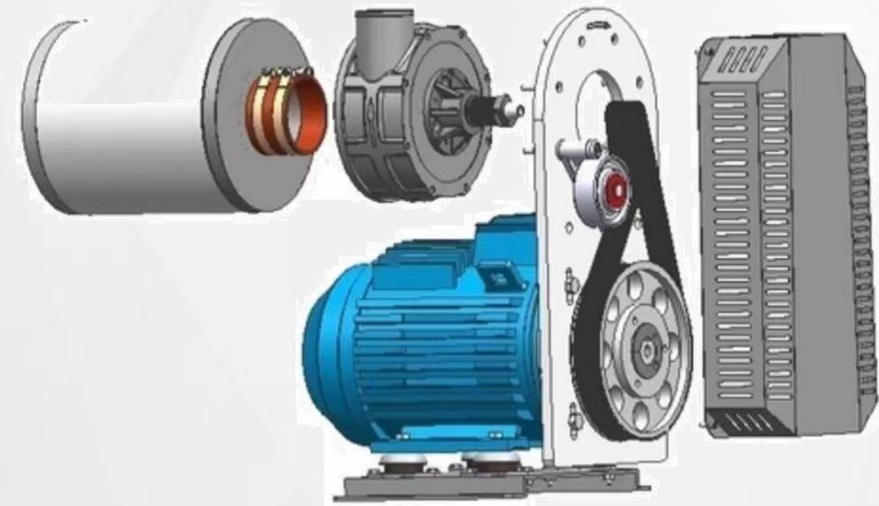
It benefits from the unique transmission design, which can make the speed of the impeller of the pump head reach 13,000-282,000 rpm and obtain ultra-fast wind speed. Pressure and excessive air flow.

Features:

- Compact design
- IEC Approved Motors
- Energy efficient
- Quiet operation
- Longer life
- Oil-free operation
- Air cooled units up to 49 deg.C inlet air temperature
- Water cooled units upto 162 deg.C inlet air temperature
- Automatic belt tensioning (1 minute belt change - no tools required)
- Low maintenance for continuous duty

Recommend Model:

- AT-70, 5.5kw;7.5kw
- AT-85,7.5kw



01 Standard Accessories -- Blower (Direct Drive Blower)

Introduce

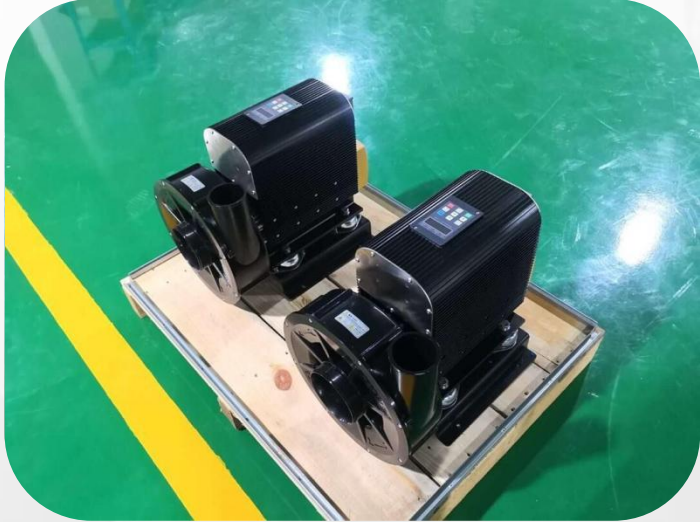
Explorer series super blower is equipped with a control system independently developed by Leeds. The speed, frequency, voltage, current and temperature of the blower can be viewed through APP. In addition, through APP can also achieve fault alarm, remote shutdown, the 24-hour operation state of the blower is fully mastered.



Manvac Direct drive turbo blowers

- ✓ NSK,SKF bearings
- ✓ Withstand 200 degree high temperature
- ✓ Small size • small weight • high performance

01 Standard Accessories -- Blower (Direct Drive Blower)



Performance Characteristics:

1. high speed direct drive blowers combined with frequency inverter .
2. you can see their advantages ,small size,small weight,high performance.
3. most important thing is direct drive,no belt.in this way,we can save many time and cost for after -service.
4. connect with high speed converter motor
5. Direct drive blower can withstand high temperatures 200 degrees
6. They are working under super high frequency:3KW 300~430HZ/4KW 300~520hz/7.5KW 300-600HZ.

Recommend Model:

- EXPLOER-85

Feature:

- Outlet:0.3-5mm ; Air Knife length:0.2-3m
- Widely used in circuit boards,plating parts,film drying
- All stainless steel SUS304 or 316L material,acid and alkalresist
- According to the aerodynamic principle design,wind resistance wind speed is average
- Pressure can be 5kgf/cm²,wind speed up to 400m/s,can blow hot air,temperature can be 250° C
- Can be used for drying water,isolated curtain,water curtain,etc., to reduce the cold/hot air loss
- Inlet diameter:32mm/40mm/50mm/63mm/76mm





Feature:

- Material: Aluminum alloy
- Adjustable width of the outlet(0.3-8mm)
- Anti-corrosion,anti-leakage design
- Widely used in circuit boas,plating parts,film drying
- Unique protruding knife egde,jet continuous,controllable airflc
- The droplet shape and the inproved air entrament design provide high-speed and stable airflow
- Inlet diameter:3"(Customizable)

01 Standard Accessories -- Air Knife(Spider Arm Air Knife)

Feature:

- Multi angle wind cutting, no blind area, no dead angle
- Single bottle blowing time is 3-5 times of the original
- Adapt to different bottle types, convenient and fast adjustment
- Close to the bottle at the nearest distance to maintain the effect of wind cutting
- The blow times of a single bottle is 10-20 times of that of the traditional air knife series
- The stepped air nozzle covers the bottle body from top to bottom, which conforms to the principle of fluid mechanics
- It can be used with Ritz tell centrifugal fan and Ritz high pressure fan, which is flexible and convenient



Material:

- ◆ Main pipe material :stainless steel
- ◆ Nozzels material:Polyoxymethylene (POM) -50- 110° C temperature allowed

Feature:

- It is suitable for the drying of various cleaning and conveying modes, such as through type, hanging type, trough type, rotary type, etc
- It can effectively cover multiple surfaces of the product for drying, and the outlet flow rate is up to 200m / s
- Suitable for drying complex products with grooves, blind holes, heterosexual, etc
- All stainless steel 304 or 316 material, CNC processing, very low pressure loss
- The effective distance is up to 40 cm, more than twice the effective drying distance of traditional air knife
- The matching reciprocating machine swing system can realize no blind area purging, and the effect is equivalent to manual air gun operation





Feature:

- Low noise, 11 times lower than that of conventional drilling pipe air curtain
- Saving compressed air, saving 63% of air consumption compared with conventional air curtains
- Balanced air flow, air compression ratio up to 40:1
- No moving parts, aluminum or stainless steel
- Small size, easy to install and maintenance free
- Provide various specifications of air curtain width (100-1220mm), adjustable air flow intensity (with adjustable press)
- It can be used with air compressor, flexible and convenient



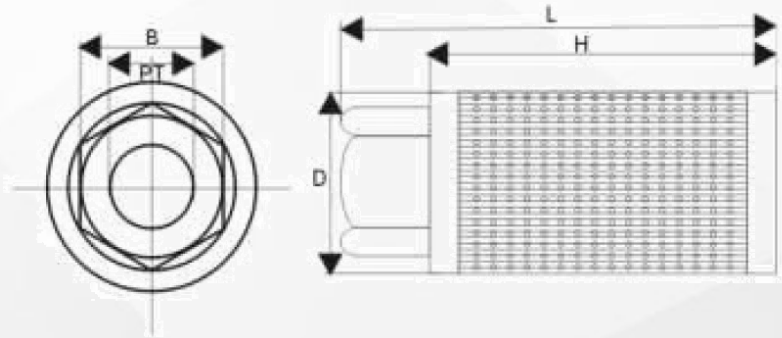


Feature:

- Low noise, within 70dB in most cases
- Environmental protection and energy saving, air flow balance
- Suitable for different bottle types, convenient adjustment, fast compression, low air consumption, air compression ratio up to 40:1
- Adjustable air knife and flow
- Structure design open type, compact, firm, easy to install
- No need for electricity, no moving mechanical parts
- Small holes on the edge of the ring for easy installation



Standard Accessories -- Suction Air Filter & Connector for Air Filter



Model	PT	D (mm)	L (mm)	H (mm)	B (mm)	Airflow (L/min)	Weight (kg)	EXW price (USD)
MF-08	1	58	170	155	42	1100	0.20	10
MF-10	1 1/4"	71	186	170	54	210	0.32	15
MF-12	1 1/2"	85	196	182	65	285	0.49	15
MF-16	2	103	215	202	75	395	0.65	18
MF-20	2 1/2"	148	274	252	97	750	1.20	20
MF-32	4	208	380	357	142	1000	2.45	30



Barrel Connector



Elbow Connection



Air Filter



Transparent Hosing(anti-temp 100° C)



Length can be defined by yourself

Code of blower turbine	Diameter	EXW price (USD)
	1"	3.69
2,3	1.25"	3.69
4	1.5"	4.00
5, 6, 7	2"	4.31
8	3"	5.54
9	4"	6.15

Steel Wire Silicon Holding (anti-temp 300° C)



Length can be defined by
yourself

4 meter for each pc

Code of blower turbine	Diameter	EXW price (USD)
	1"	20.00
2, 3	1.25"	20.77
4	1.5"	21.54
5, 6, 7	2"	23.08
8	3"	30.77
9	4"	34.62

01

Standard Accessories -- Hose Connector & Clip



Hose Conector(Blower to Pipe)

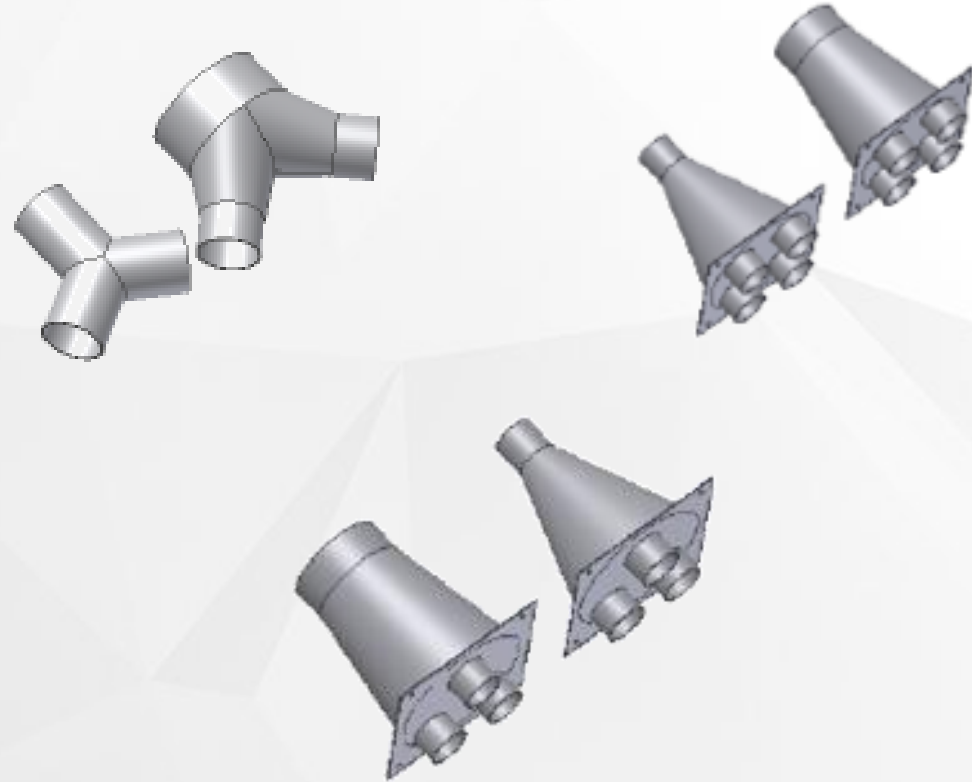


Threaded Clip

Diameter:1"/2"/3"/4"(Size corresponding to air inlet of blower)

Material:Stainless Steel

01

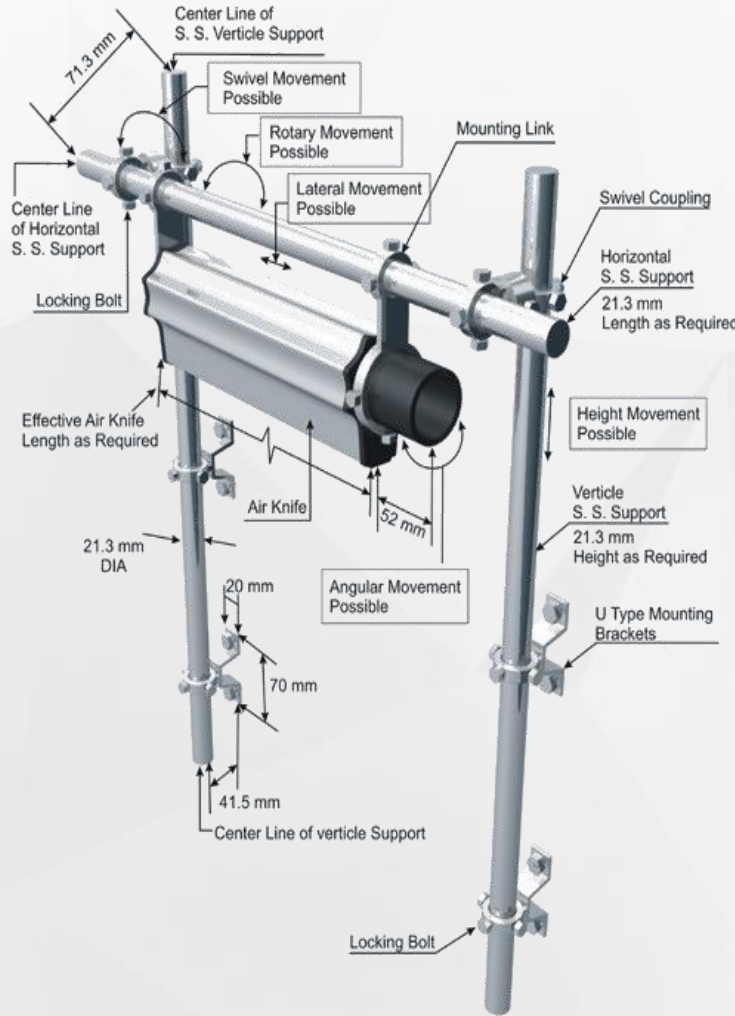
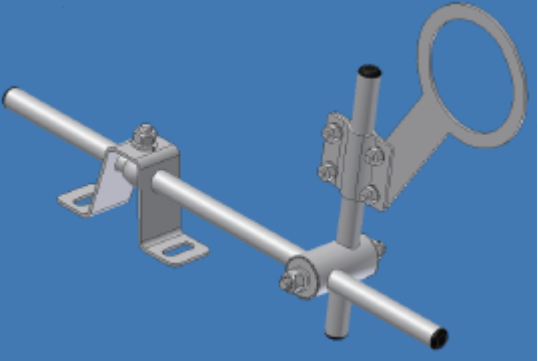
Standard Accessories -- Y Connector

Material:Stainless Steel
Number of branches can be customized

01



Standard Accessories -- Air Knives Holders



**Material:
Stainless Steel**

**1pc air knife with 1set air
knife holders**

The holder is Adjustable

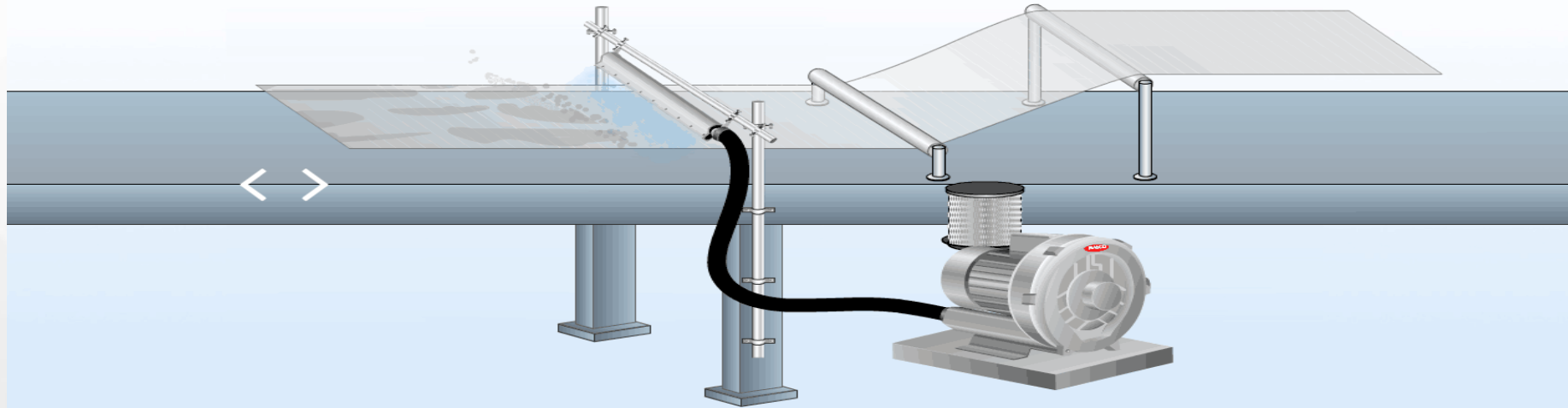


It is widely used in **drying systems** of various industries, such as:

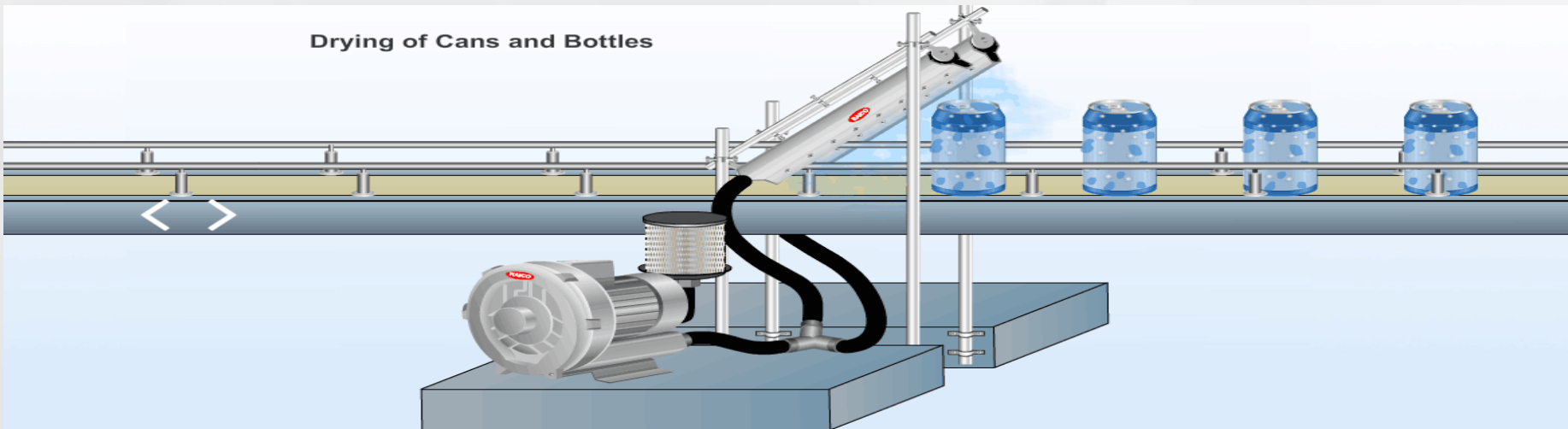
- ◆ Automobile spart parts drying
- ◆ Plastic parts drying
- ◆ Lithium battery drying
- ◆ Painting and drying
- ◆ Food package drying
- ◆ Electroplating surface treatment
- ◆ Drying beverage bottle before labling
- ◆ Drying wine bottle before labeling



Drying And Cooling Of Coated Paper



Drying of Cans and Bottles



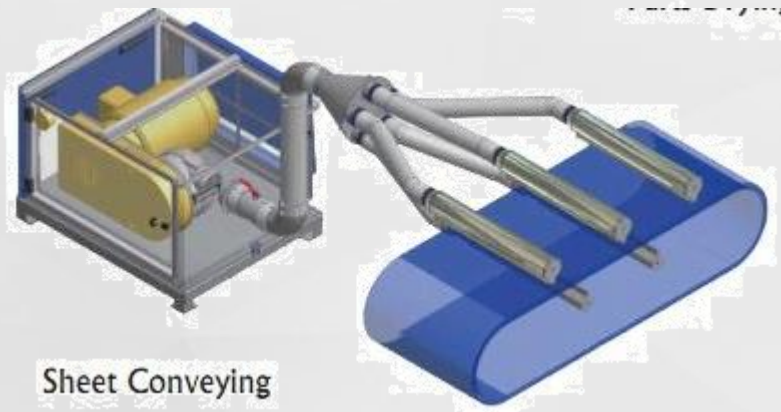
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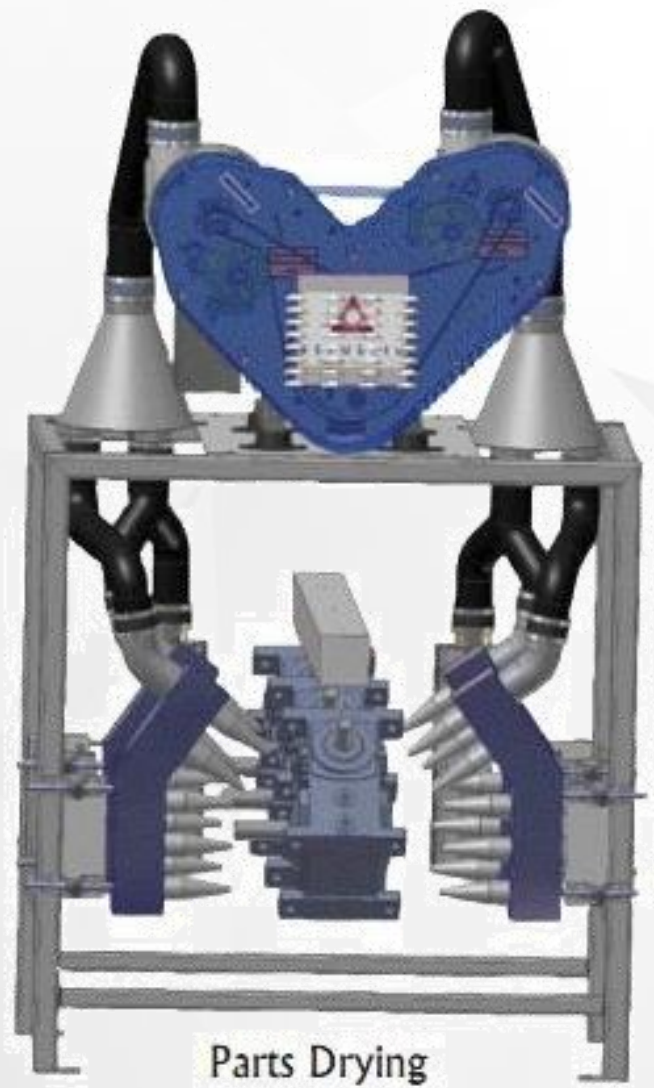
Application -- Case Picture



Wheel Drying



Sheet Conveying

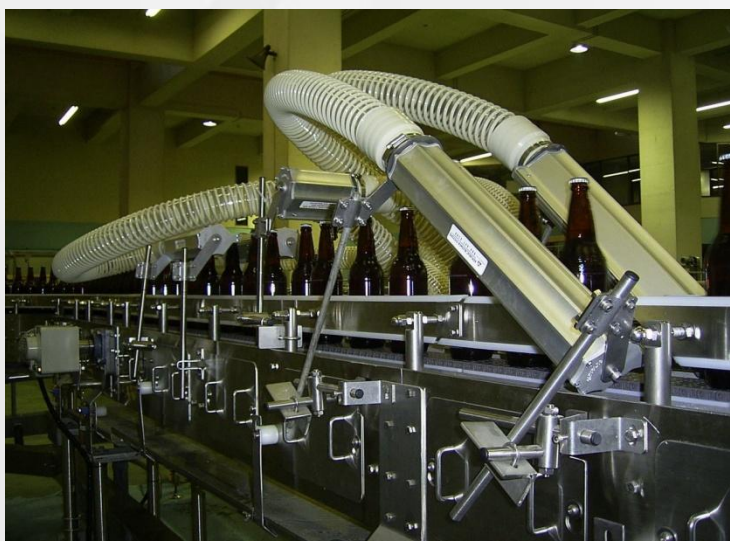


Parts Drying

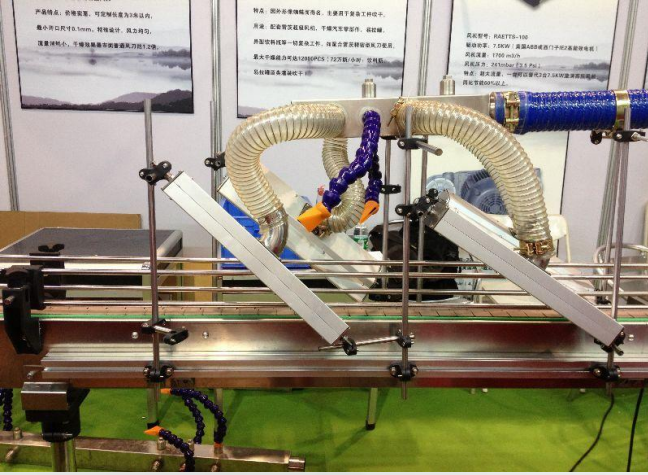
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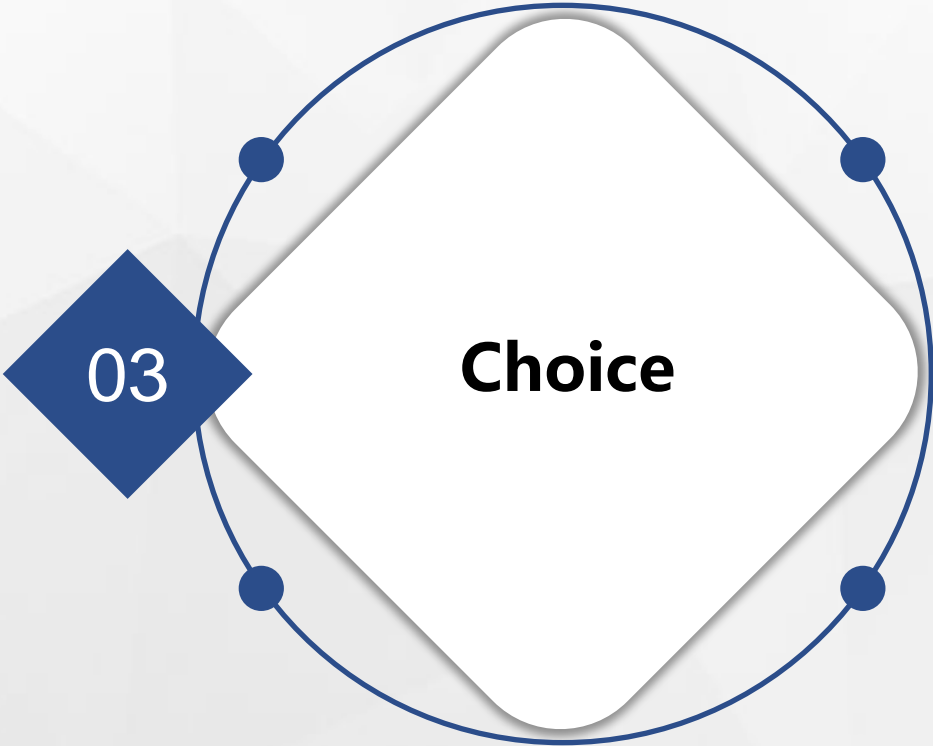


Application -- Case Picture



Application -- Case Picture







Required airflow = air knife length (in meters)* transfer belt speed (in m/s)* air knife number *
air knife outlet size (in meters)* 3600

The air knife outlet size usually is 0.8mm, outlet size can be adjusted range: 0.3-5mm

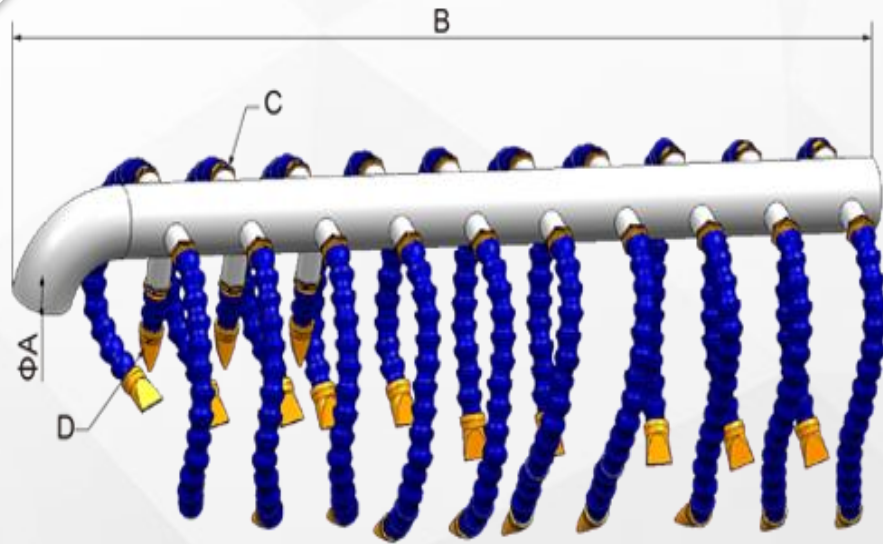


Manvac air blower and air knives system

03



Choice -- Spider Arm Air Knife



A: Main pipe diameter

B: Total main pipe length

C: Quantity of air nozzles on both sides

D: Quantity of air nozzles on bottom

Stepped distribution of air nozzle during installation:

For example:







A: 76mm; B: 2000mm -- (Customer requirements)

We can customize the number and length of air nozzles according to customers' requirements

C: 44 (Φ25*1.8mm) -- air nozzle: 12pcs(300mm) + 12pcs(400mm) + 10pcs(500mm) + 10pcs(600mm)

D: 3 (Φ25*1.8mm) -- air nozzle: 3pcs(100mm)



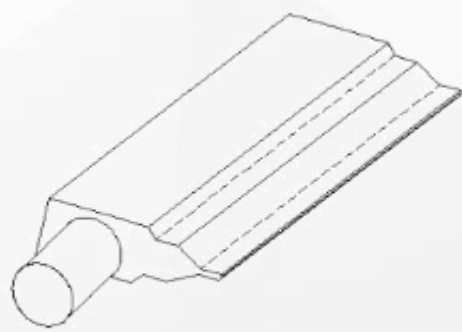
Item	Industry characteristics	Item	Industry characteristics
	Food, corrosive, high safety industry		Drying industry with long distance and complex grooves
	Ultrasonic cleaning, circuit board drying, industries requiring high-speed and stable airflow		Industries with low air velocity and high pressure that need high-strength impact air flow
	Wine and beverage production lines, industries with dry blind areas		Industries with small airknife consumption and strong blowing power



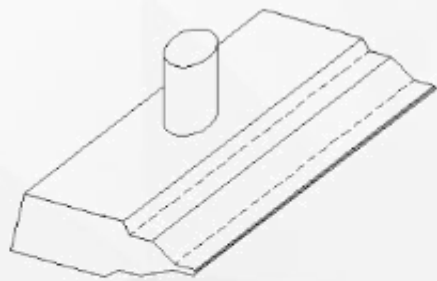


Installation--SS Air Knife & Coanda Air Knife

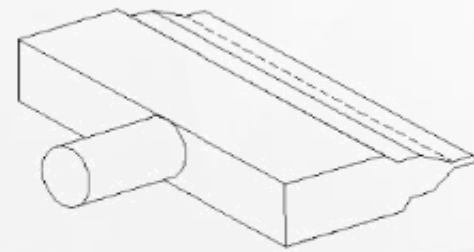
Inlet direction can be customized on the side/body/top



On the side

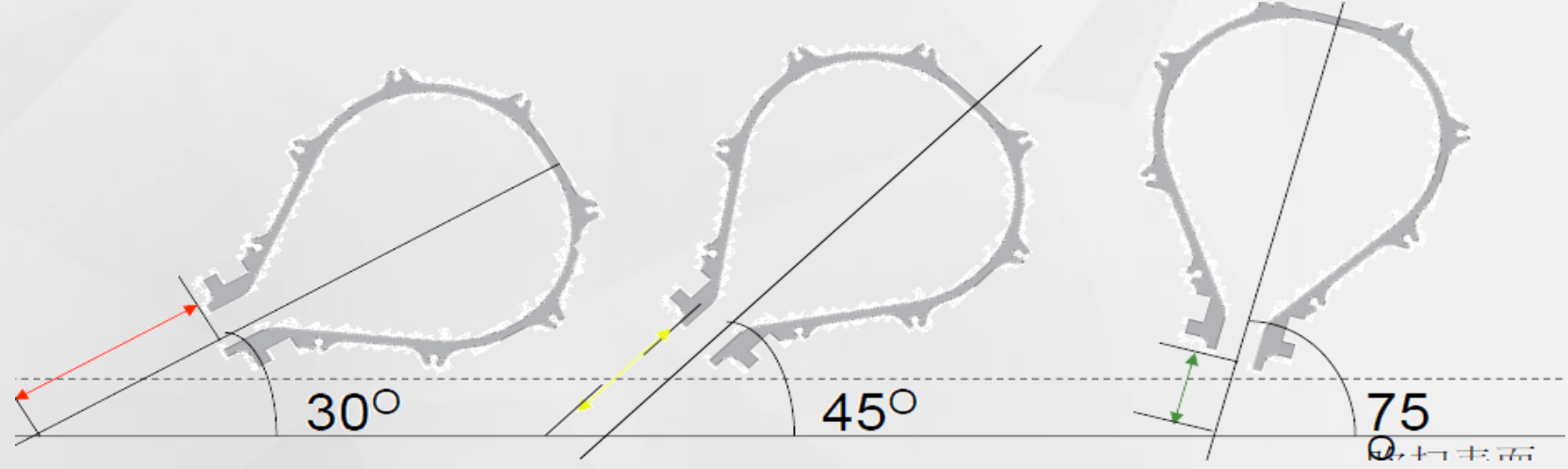


On the body



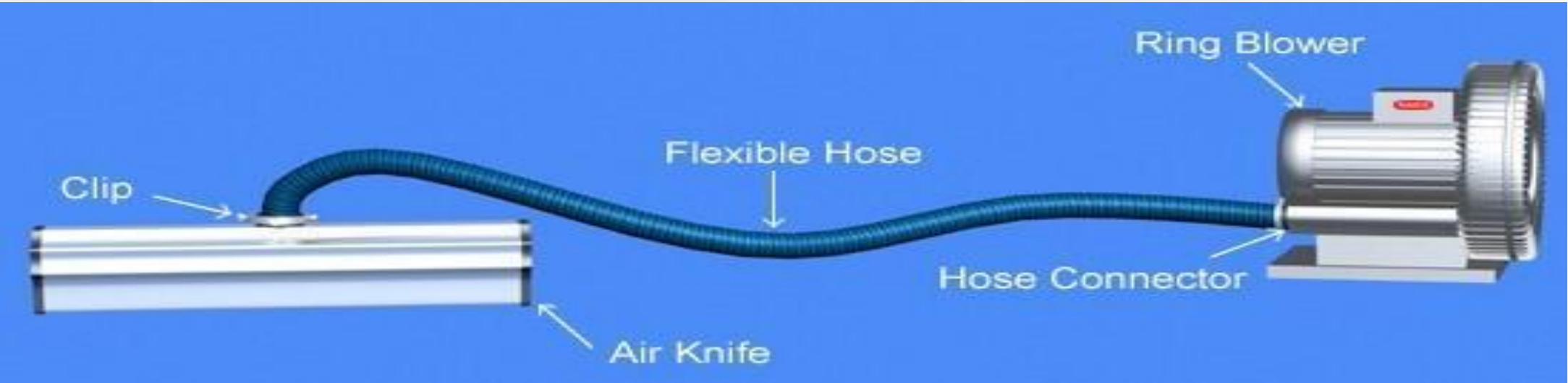
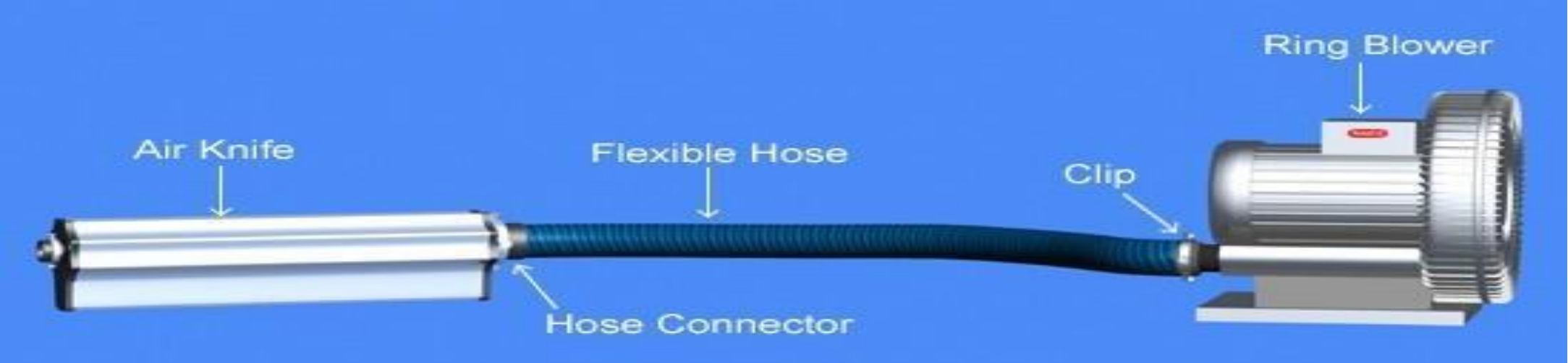
On the top

Air knife installation angle

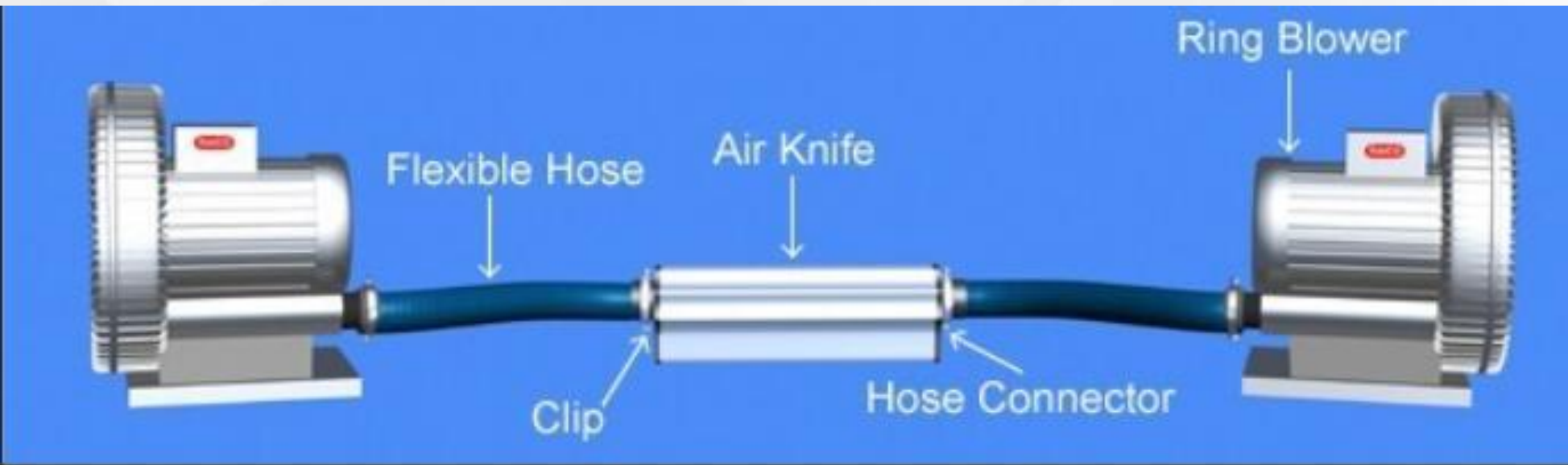
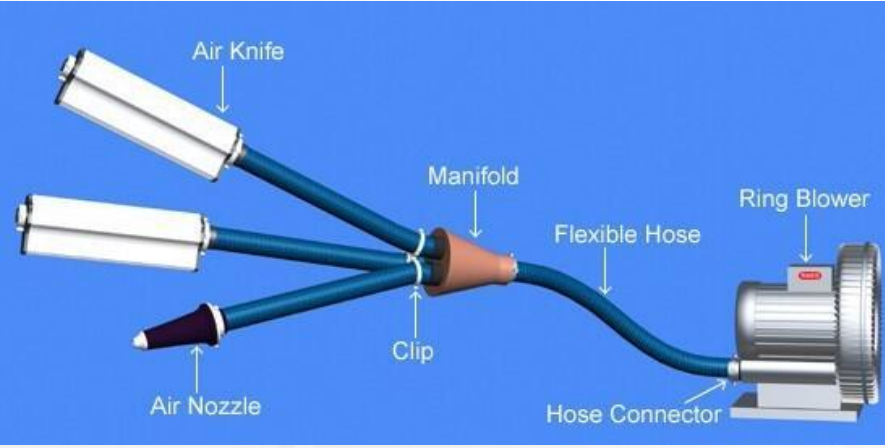
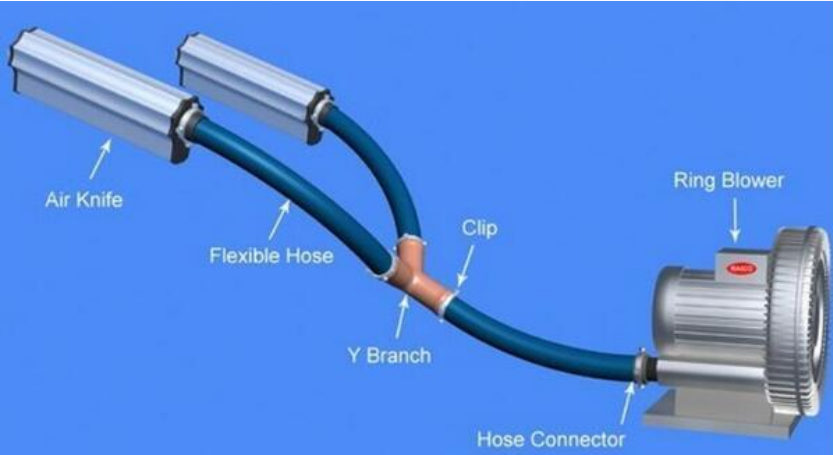




Installation -- SS Air Knife & Coanda Air Knife



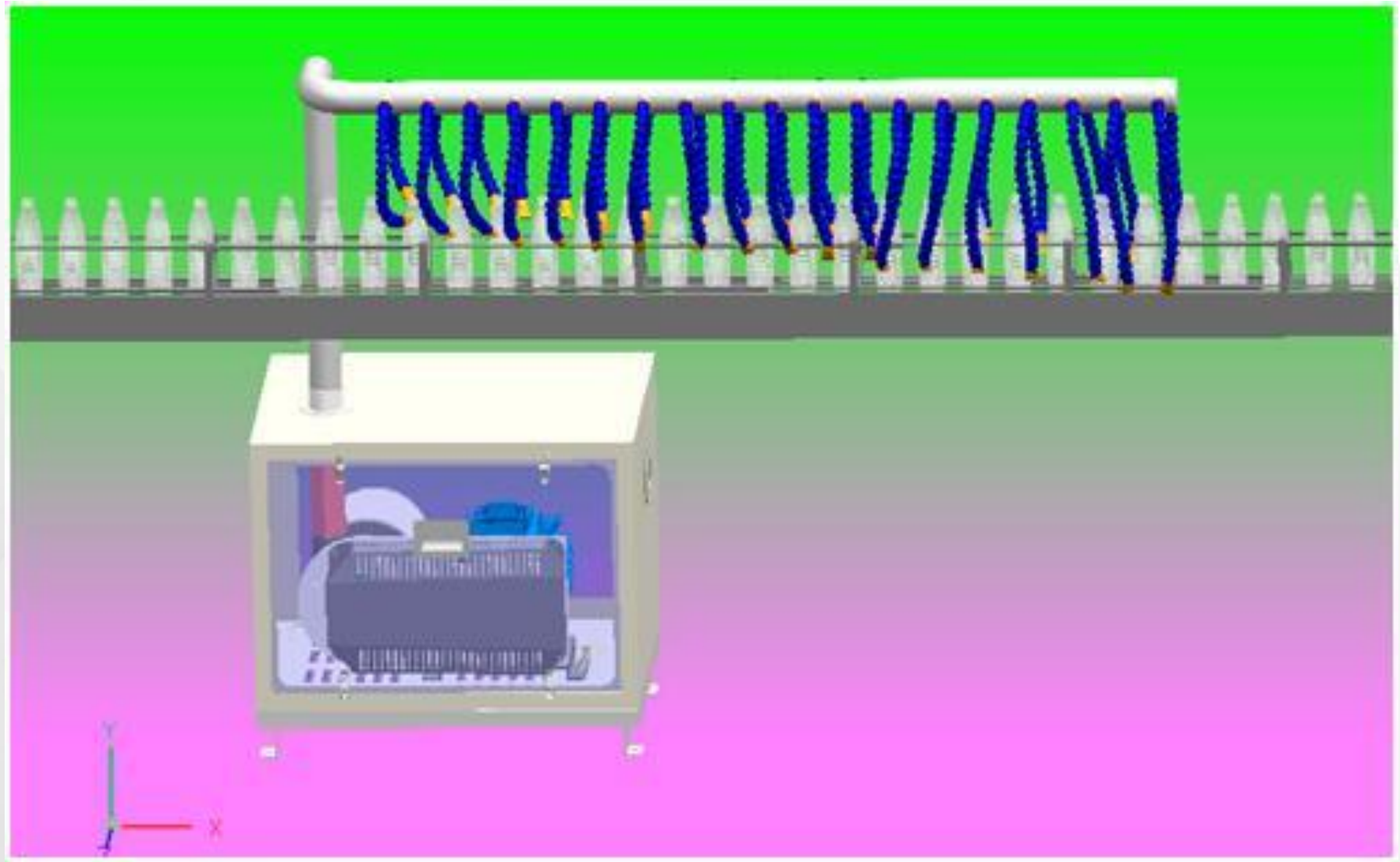
Installation-- SS Air Knife & Coanda Air Knife





04

Installation--Spider Arm Air Knife



04

Installation--Spider Arm Air Knife



THANK YOU



Contact :

Miss Linda [sales&marketing]

Whatsapp/Cell : 0086 15014788350

Email : sales@manvac.cn