

# 电磁脉冲阀产品手册

electromagnetic pulse valve product handbook



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## 1. 综述 SUMMARIZE

近年来，由于国家实施日趋严格的排放标准，袋式除尘器越来越占据市场优势。而以强力清灰为特征的脉冲喷吹袋式除尘器是目前袋式除尘器领域内发展最快、应用最广泛的一种高效除尘设备。可达到极低的颗粒排放浓度，有效控制影响大气质量和人体健康的细微粒子如PM2.5等的污染，在大气污染治理中发挥重要作用。

As the national has implemented increasingly stringent emission standards recent years, bag filter has taken increasingly dominant role in the market. Among the pulse blow bag filters, the one with character of powerful cleaning is an efficient dust removal equipment which develops very rapidly. The product is also very widely used as it is designed to achieve a very low particulate emission concentration which could effective control the air quality and human health effects of fine particles such as PM2.5 pollution. The equipment is now taking a very important role in the air pollution treatment.

电磁脉冲阀是脉冲喷吹袋式除尘器清灰气流的发生机构。它的性能和质量是决定脉冲喷吹袋式除尘器清灰效果和装备水平的一个重要因素。

Electromagnetic pulse valve is the generating equipment for cleaning flow of the pulse bag filter. It's performance and quality determine the key factor for cleaning effect and equipment level of pulse bag filter.

半个世纪以来，电磁脉冲阀采用橡胶膜片作为脉冲阀的开关元件一直沿用至今，为脉冲喷吹袋式除尘器提供清灰气源，促进了脉冲喷吹清灰技术的发展和运用，为人类治理大气污染作出了贡献。由于橡胶膜片依靠弹性变形产生位移而实现脉冲阀的开启和关闭的特性，限制了橡胶膜片类脉冲阀向大喷量、小体积方向发展，也影响其喷吹性能的提高。

For half a century, rubber diaphragm has been broadly used as the switch component for a solenoid valve which supplies the air resource to the pulse-jet bag filter, promoted the development of pulse jet cleaning technology and contributed to the pollution control for society as well. At the same time, rubber sheet achieve the on-off based on its elastic deformation movements. That limits the valve to meet the trend of the filter system design requirement which is bigger blow performance and smaller size.

为了满足袋式除尘器向大型、高效、长袋、高温方向发展，本公司研制成功采用柱塞（滑动阀片）取代橡胶膜片的新型电磁脉冲阀，柱塞类电磁脉冲阀具有更高的喷吹峰值压力和上升速率，从而产生更强的清灰气流，在同等条件下，可增加滤袋清灰面积20%，同时柱塞类脉冲阀结构紧凑，体积缩小10%，适合滤袋行间距布置。由于提高了耐温和耐腐蚀性能，从而具有更长的使用寿命。

To meet the bag filtration system developing trend, which is large scale, high efficiency, long bag and higher temperature, our company developed piston style valve (slide flap) Instead of the diaphragm. The piston style valve has higher pulse peak value and quicker climbing speed. Thus it can generate stronger pulse air flow, increase dust cleaning area 20% under the same condition and reduce the installation volume 10% less to make the bag layout more efficient. Also because the piston design has higher heat resisting and corrosion preventing nature, it will give the valve longer operating life.

## 1. 综述 SUMMARIZE

电磁脉冲阀是一种瞬态（50~250ms）开启的阀门。在传统的脉冲阀产品资料中一般只叙述型号、规格、外形尺寸、使用技术条件、膜片寿命、流量系数KV/CV等内容，而其重要的喷吹性能却没有表述。在本产品手册中向用户提供了每一种电磁脉冲阀喷吹性能的主要参数：如输出输入压力比、输出压力上升速率、气电脉冲宽度差、喷吹流量等数据，并给出喷吹气量曲线图、开关特性图。供用户选用时参考，使脉冲喷吹袋式除尘器清灰装置的组成更加科学合理，有利于降低能耗和延长滤袋使用寿命。

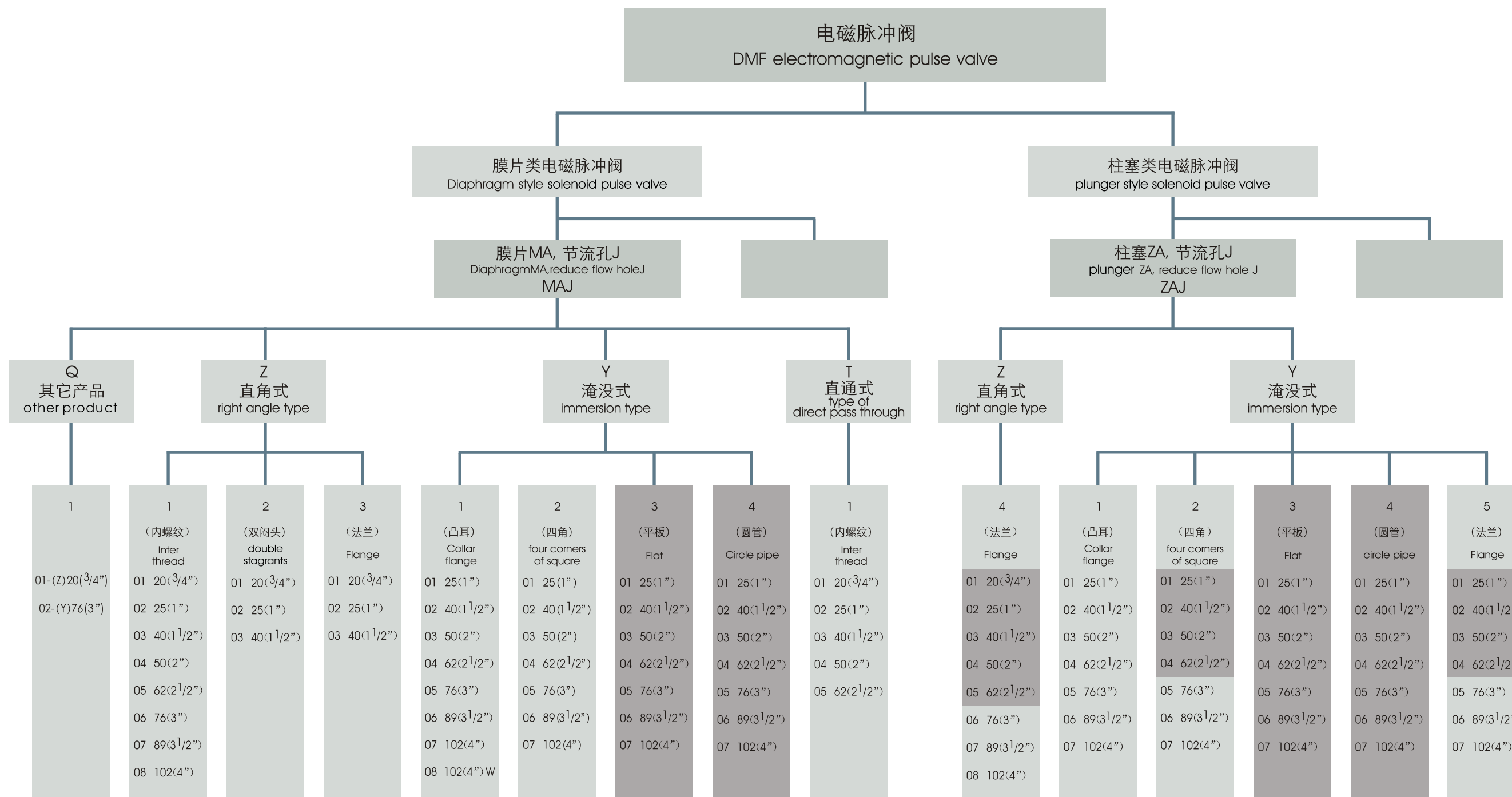
Electromagnetic pulse valve is a valve to open transiently from 50 to 250ms. In the product information for traditional pulse valve products, it only describes the models, specifications, dimensions, technical conditions for usage, diaphragm life, flow coefficient etc., yet the important description on its blowing performance is commonly neglected. In the product manual prepared by Shangtai, it outlines the key indicators for every type of Electromagnetic pulse valve, like output-input pressure ratio, the output rate of pressure rise, the pulse width difference between gas and power, injection flow and etc. It also provides injection volume curve and switching characteristics figures for user reference. Based on the information, the equipment composition of pulse blow bag filter could be more scientifically reasonable and the filter bag life could be extended with energy saving as well.

脉冲喷吹袋式除尘器清灰装置由分气箱、电磁脉冲阀、喷吹管等组成一个系统，在这个系统中电磁脉冲阀提供了清灰的振动气源。喷吹气流需经过喷吹管的输送和分配，从喷吹管上喷吹孔喷出的气流在滤袋内形成冲击波和逆向气流使滤袋变形，剥离外壁堆积的尘饼。同时清灰装置要通过现场调试，建立合理的清灰（喷吹）制度。“细节决定成败”，只有重视每一个细节，正确掌握每一个细节的规律，才会有整个系统的最佳状态。

Pulse blow bag filter is a machinery system combined with manifold box, electromagnetic pulse valve, injection pipe and etc. Among the components, the electromagnetic pulse valve provides the vibrating flow for dust removal. The blow flow is transmitted and distributed through the blow pipes and forms the shock wave and reverse flow in the filter bag through the holes on the pipes. The filter bag is then deformed and the dustcake stacked on the outer wall is peeled off.

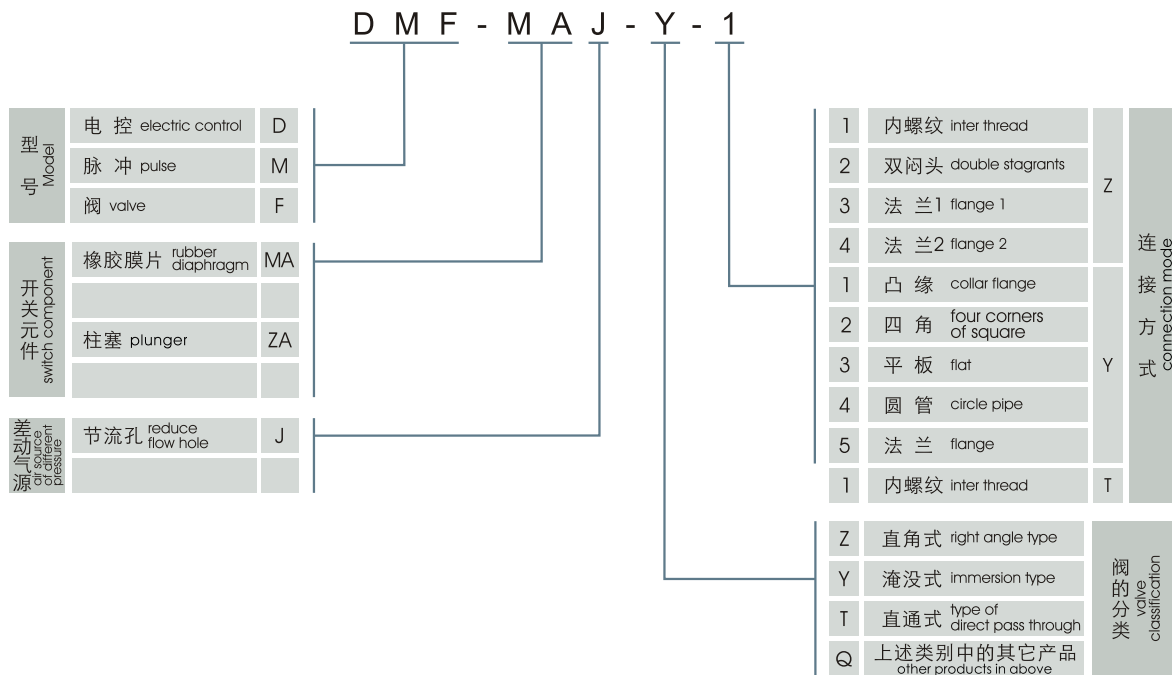
The dust remover equipment should be onsite adjusted to establish a reasonable dust removing (blowing) mechanism. Details determine success or failure, only by focusing on every details and correctly grasping principles of each details, may the whole system reach the best performance.

1.1 电磁脉冲阀全系列型谱图 PATTERN DIAGRAM OF ELECTROMAGNETIC PULSE VALVE SYSTEM

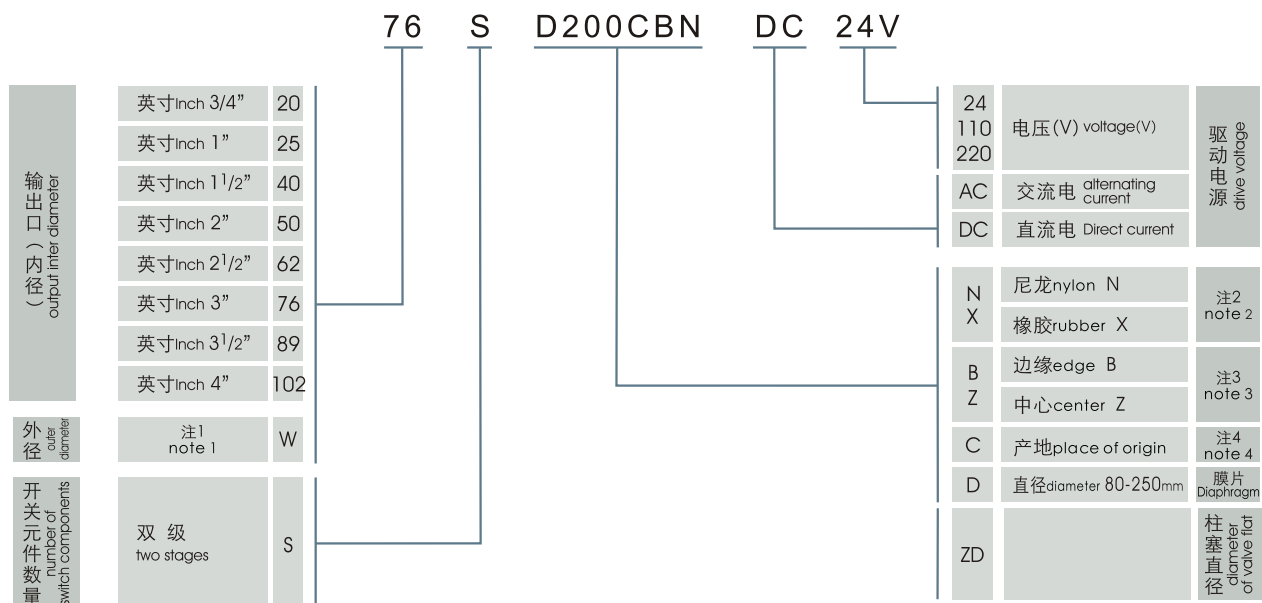


★ 现、原用型号及名称对照表见第7页 Type & Description comparison table, please check page 7 ★   本公司批量生产的产品 batch product of the company   请登陆本公司网站了解产品信息 please register the company net station to visit product information

## 1.2 型号含义 MODEL IMPLICATION



## 规格表示 SPECIFICATION



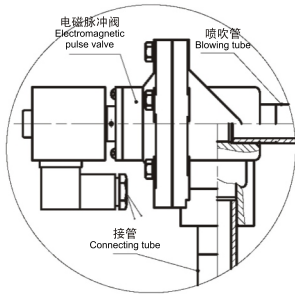
注note1: 脉冲阀的规格以其输出口配置喷吹管内径表示, 单位为毫米。如以喷吹管外径表示, 应以W注明。  
Electromagnetic pulse valve is specified by its tube inner diameter of the output system, unit of measure meat is mm. Will be marked with W if presents the outer diameter.

注note2: 指膜片上配置的密封垫材料, 尼龙为N、橡胶为X。  
The configuration means the material of sealing gasket on the diaphragm: N is nylon, X is rubber.

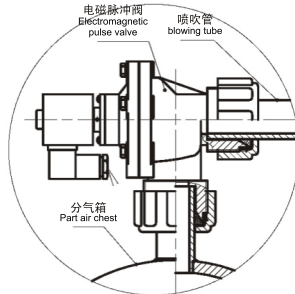
注note3: 指膜片上节流孔的位置, 边缘为B、中心为Z。  
Position code for reduce flow hole on the diaphragm: B is the edge, Z is the center.

注note4: 以膜片原产地国家英文第一字母表达。  
Indicated by the first letter of the original producing country.

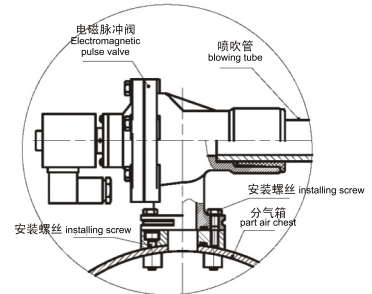
### 1.3 连接方式示意图 SCHEMATIC DIAGRAM OF INSTALLING MODEL



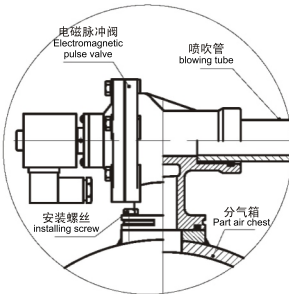
Z-1



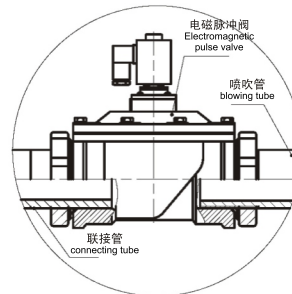
Z-2



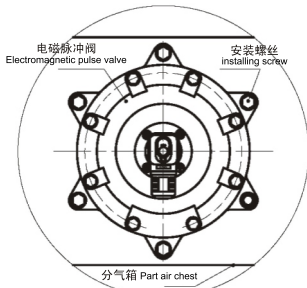
Z-3



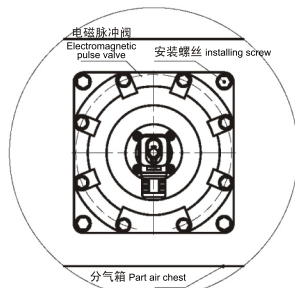
Z-4



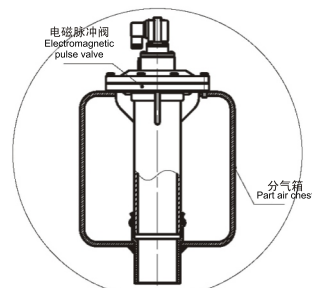
T-1



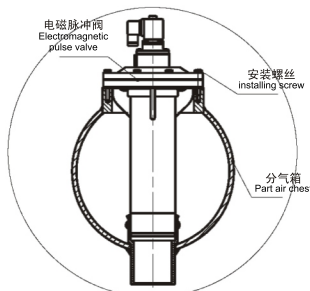
Y-1



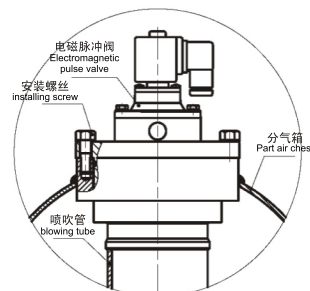
Y-2



Y-3



Y-4



Y-5

## 1.4 现、原用型号及名称对照表 TYPE(DESCRIPTION) COMPARISON TABLE

序号 Item	现用型号 (名称) New Type(Description)	原用型号 (名称) Original Type (Description)
1	DMF-MAJ-Z-1	DMF-Z
2	DMF-MAJ-Z-2	DMF-ZM
3	DMF-MAJ-Z-3	DMF-ZF
4	DMF-MAJ-Y-1	DMF-Y
5	DMF-MAJ-T-1	DMF-T
6	DMF-MAJ-Q-1-(Z)	DMF-2L-B
7	DMF-MAJ-Q-1-(Y)	DMF-Y-B
8	DMF-ZAJ-Y-1	STF-Y
9	DMF-ZAJ-Y-2	STF-Y-2
10	DMF-ZAJ-Y-3	STF-Y-3
11	DMF-ZAJ-Y-4	STF-Y-4
12	DMF-ZAJ-Y-5	STF-Y-5
13	DMF-ZAJ-Z-4	STF-Z
14	柱塞类电磁脉冲阀 Piston design solenoid pulse valve	滑动阀片式电磁脉冲阀 Sliding flap design solenoid pulse valve



## 1.5 使用技术条件 OPERATION TECHNICAL CONDITIONS

工作压力 working pressure	0.15 ~ 0.6Mpa
工作介质 working substance	清洁空气 clean air
工作电压 operation voltage	<sup>1</sup> DC24±10%, <sup>2</sup> AC220V ±10%
工作电流 working current	<sup>1</sup> 0.9A <sup>2</sup> 0.23A
使用环境 operating environment	温度-10℃ ~ +55℃, 空气的相对湿度不超过85% Temperature from -10℃ ~ +55℃, The relative humidity of the air is no more than 85%
使用寿命 service life	膜片、柱塞喷吹100万次或5年 diaphragm, piston blowing for 1 million times or 5 years

注 note:

1、本产品工作压力范围为 0.15~0.6MPa。在实际使用中应根据除尘器清灰要求设定工作压力, 工作压力不足可能造成清灰效果不佳。工作压力过高可能影响滤袋使用寿命。直角阀一般选用工作压力为0.45~0.6MPa, 淹没式阀一般选用工作压力为0.25~0.35MPa。

The working pressure of this product is ranging from 0.15~0.6MPa.

Set the working pressure according to the cleaning requirement of dust filter, lack of working pressure might compromise the cleaning effect. Yet the over working pressure will decrease the service life of the filter bag. The right angle valve will commonly request for a pressure of 0.45~0.6MPa. The immersion valve will take from 0.25~0.35MPa.

2、电信号宽度: 一般选用50~100ms(通过调节电信号宽度从而得到相应的气脉冲宽度及所需的喷吹量。)

喷吹间隔时间: 视喷吹后气源压力恢复状态而定。

Electric Signal width: commonly 50~100ms.(To obtain corresponding gas pulse width and required blowing volume by adjusting electric signal width).

Blowing interval: Depends on the pressure recovery status.

3、本产品手册提供的电磁脉冲阀喷吹性能各项参数的测试气源压力: 直角阀、直通阀为0.6Mpa、淹没式阀为0.3Mpa。测试采集点为被测电磁脉冲阀输出端处。

Test pressure for Right Angle Valve & Direct Through Valve: 0.6Mpa. Test pressure for Immersion Valve: 0.3Mpa. Collect point: output for solenoid pulse valve.

## 1.6 安装方法的提示 INSTALLATION GUIDELINES

电磁脉冲阀的安装方法是用户选择不同型号产品时综合考量的重要条件，规范的安装是电磁脉冲阀正常使用的重要前提。为了方便用户了解和选用，本产品手册向用户提供各种型号产品的安装方法。请用户在了解产品的安装方法时注意：

The method of installation is a critical factor in selecting the model of a solenoid pulse valves. Proper installation is fundamental to correct valve functioning. In this handbook, the customer will find the installation guidelines for the different valve models as follows:

1、电磁脉冲阀的喷吹气源由分气箱（气包）提供，分气箱有正方形和圆形二种。圆形分气箱耐压性能好，使用淹没式脉冲阀时，方形分气箱安装较为方便。不论使用何种形式分气箱，均应符合机械行业标准JB/T 10191-2010《袋式除尘器 安全要求 脉冲喷吹类袋式除尘器用分气箱》的各项规定。

The source of pulse-air for the solenoid pulse valve is the compressed air header. There are two types of header: square and circular. The circular design provides better pressure resistance, however the square design offers more convenient installation when use embedded solenoid diaphragm valve. Whatever type air header is used, it should be in accordance with the standard of Machinery Industry Association JB/T 10191-2010 < Bag filter safety rules manifold for pulse-jet bag filter>.

2、分气箱的截面和长度决定储气容积，其容积应满足该组脉冲阀每次喷吹后，箱内剩余压力不低于喷吹前压力的50%。进气管内径决定向分气箱充气的速度，其速度应满足该组脉冲阀每次喷吹后10s内使箱内气体恢复至喷吹前的压力。

The header's storage capacity depends on its cross section size and length. It's capacity should be consistent with the required volume, which the remaining header pressure after each blow should be maintained not less than at 50% of the pressure before the blow. The inlet tube diameter affects the filling air speed, that should be consistent with the demand, which the air header should recover the original air pressure in 10s before the blow.

3、脉冲阀应安装在分气箱的上部，也可安装在分气箱的侧面，安装在侧面时，脉冲阀输入端中心不应低于分气箱侧面中心线以下。脉冲阀不可安装在分气箱底部，同时脉冲阀输出端应安装处于水平或向下位置，不可安装在向上位置。

The solenoid valve should be installed on the top or the side of the air header. When installed on the side, the solenoid valve's intake port should not be lower than air header's centerline. The valve should not be installed at the bottom of the air header and the valve exhaust port should be level or facing downward, and never facing upward.

4、设置有多个喷吹孔的管道称为喷吹管，连接脉冲阀输出端与喷吹管的管道称为连接管，连接管和喷吹管的内径应与脉冲阀输出端的通径相同。

The blow pipe is a pipe with a row of blow holes machined in. The connection between the valve's exhaust port and blow pipe is called the connector pipe. The internal diameter of connector pipe and blow-pipe should be the same as valve exhaust port of solenoid pulse valve.

5、本产品手册提供的所有电磁脉冲阀安装方法，都不能支撑分气箱等零部件的重量，应另有专用的构件来固定和支撑。

This handbook details the complete installation method for the solenoid pulses-valve only. Customer should use other specially designed hardware to support the compressed air header.

6、由于本产品手册所提供的安装方法并不包含所有尺寸和配合公差，不同时期提供的产品尺寸也可能会有变化。为了避免可能产生的麻烦，当用户选用某种产品时可向本公司销售部索取相关产品的安装图，或登录本公司网站了解相关产品的信息。

Since the installation guidelines in this handbook do not include all exact sizes and tolerances, products manufactured at different times may have some variance. Therefore, during valve selection, customer should always ask our sales department for an installation diagram to avoid a possible misfit. Customer may also visit our company website to download the correct diagram.

## 2. DMF-MAJ-Z-1型 DMF-MAJ-Z-1 TYPE

产品编号 product's number : NO.4111100

DMF-MAJ-Z-1系列产品照片  
DMF-MAJ-Z-1 series products' photograph

DMF-MAJ-Z-1型电磁脉冲阀采用橡胶膜片作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-MAJ-Z-1 electromagnetic valve employs the rubber diaphragm as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

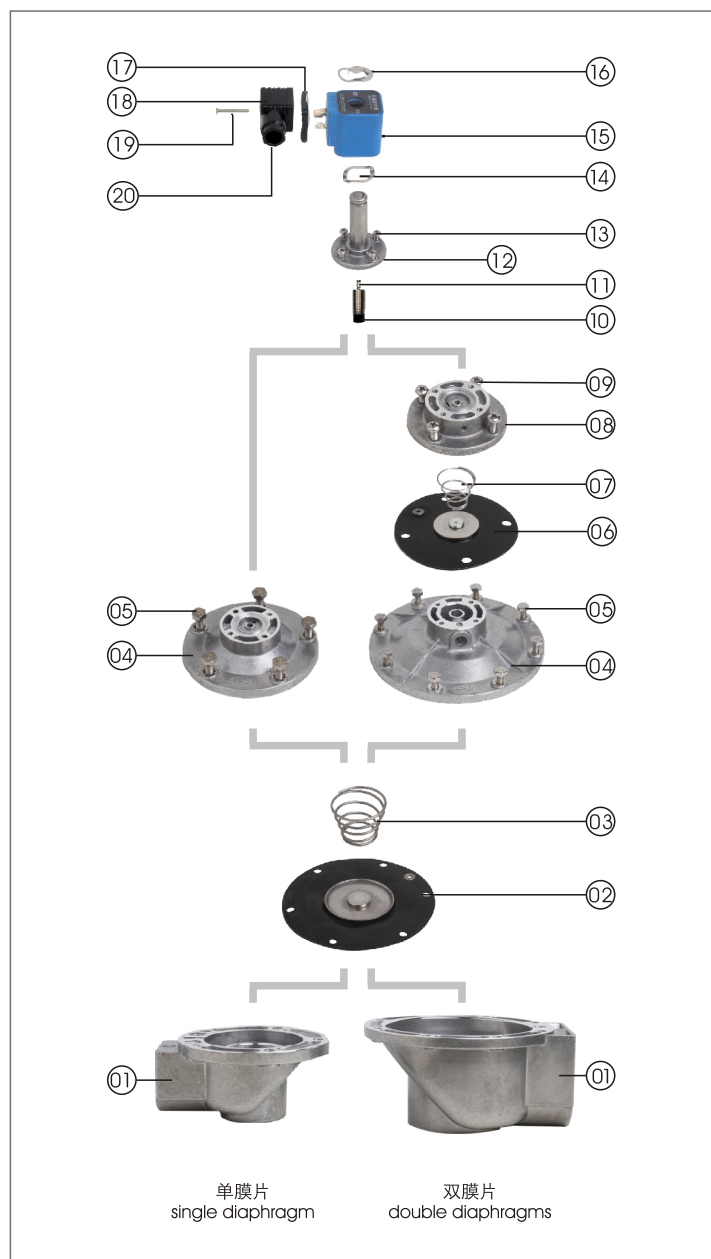
本系列脉冲阀的输入口与输出口夹角为 $90^\circ$ ，称为直角阀。其输入、输出接口为内螺纹，分别与分气箱（气包）上的短管和喷吹管螺纹连接。安装方便，气流通畅，能提供理想的清灰振动气流。适用于各种过滤单元的清灰。

The angle between input and output ports of pulse valves within this series is  $90^\circ$ , called Right Angle Valve. It's input and output interface are designed to have internal threads connecting the short tube on the manifold box (air bag) and the injection pipe thread respectively. The valve is easy to install which is applicable for various kinds of filter equipments by providing satisfactory cleaning vibrating flow.

本系列电磁脉冲阀有：20mm( $3/4$ "）、25mm(1"）、40mm( $1\frac{1}{2}$ "）、50mm(2"）、62mm( $2\frac{1}{2}$ "）、76mm(3"）、89mm( $3\frac{1}{2}$ "）、102mm(4"）八种规格。其中：20mm( $3/4$ "）、25mm(1"）为单膜片阀，40mm( $1\frac{1}{2}$ "）~102mm(4"）为双膜片阀。

Electromagnetic pulse valves of this series are classified as eight categories below: 20mm( $3/4$ "）、25mm(1"）、40mm( $1\frac{1}{2}$ "）、50mm(2"）、62mm( $2\frac{1}{2}$ "）、76mm(3"）、89mm( $3\frac{1}{2}$ "）、102mm(4"）。Among which 20mm( $3/4$ "） and 25mm(1"） are single diaphragm valve and 40mm( $1\frac{1}{2}$ "）~102mm(4"） are double diaphragms valve.

## 2.1 MAJ-Z-1型分解图及明细表 MAJ-Z-1 SEPARATE DIAGRAM AND INDEX LIST



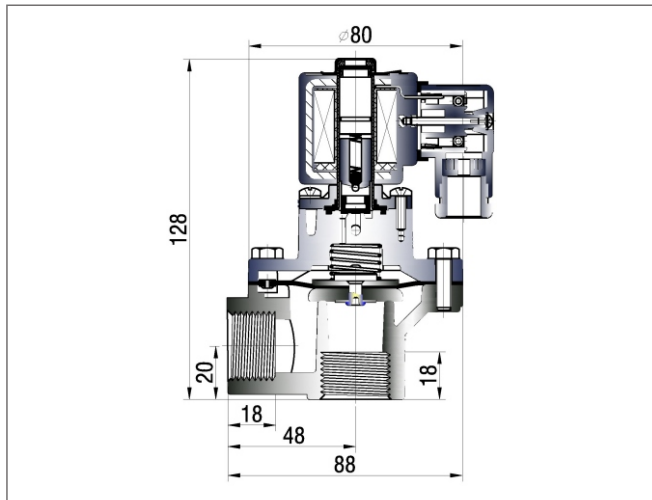
明细表 illustrative list

序号 Number	零件名称 components name	配置 disposition	
		单膜片 single diaphragm	双膜片 double diaphragms
01	阀体 valve body	1	1
02	膜片 (主) diaphragm (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	4-5	6-8
06	膜片 (副) diaphragm (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1

DMF-MAJ-Z-1电磁脉冲阀分解图  
DMF-MAJ-Z-1 separate diagram of valve

## 2.2 MAJ-Z-1型 20 (3/4")

产品编号 product's number : NO.4111101



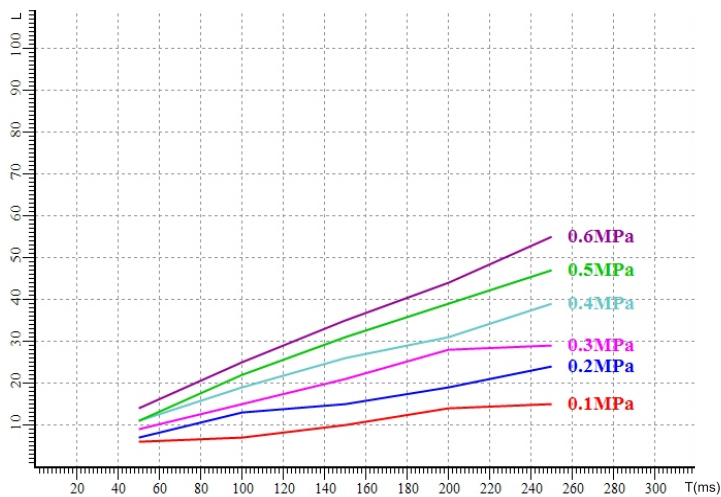
产品结构图 product structure diagram



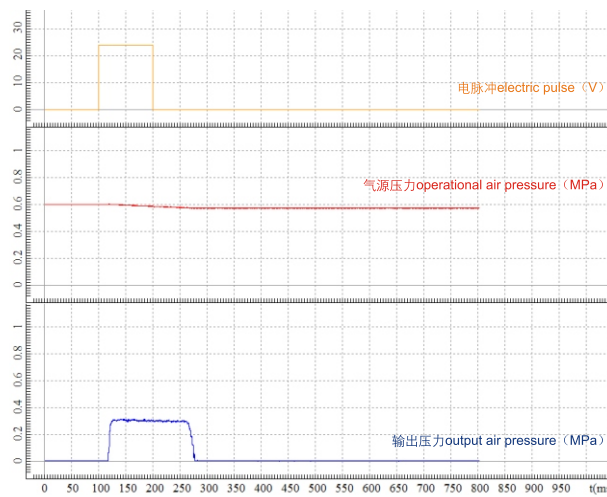
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	56
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	37
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	52
喷吹流量 blowing flow	L/Ms	0.13



喷吹气量曲线图 air flow curve

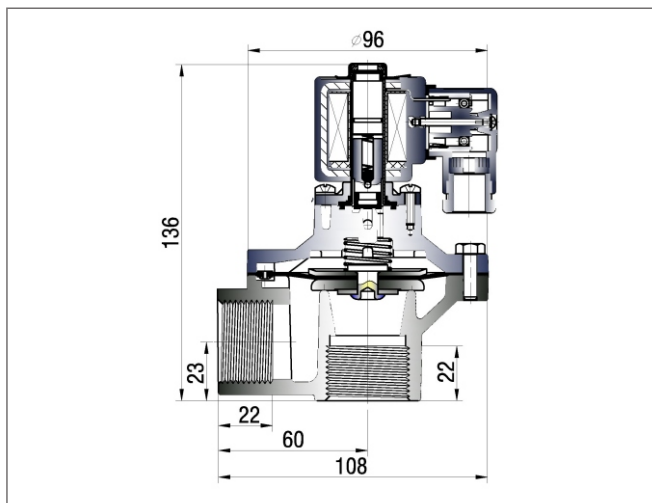


开关特性图 switch on/off character diagram



## 2.2 MAJ-Z-1型 25 (1")

产品编号 product's number : NO.4111102



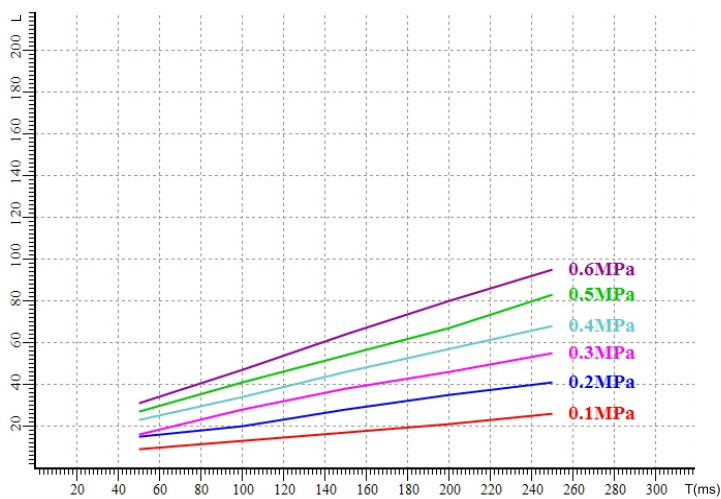
产品结构图 product structure diagram



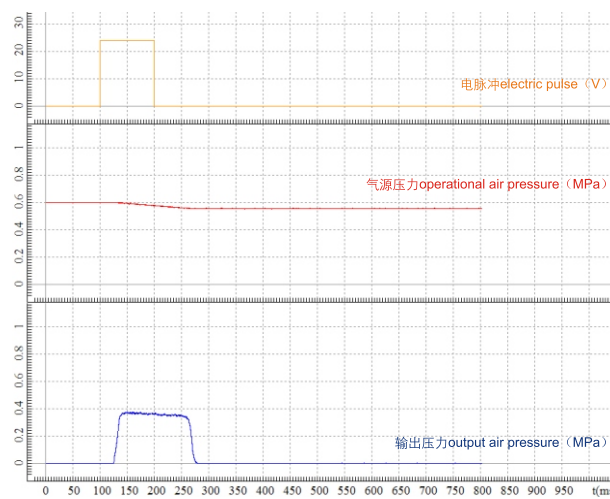
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	64
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	40
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	64
喷吹流量 blowing flow	L/Ms	0.25



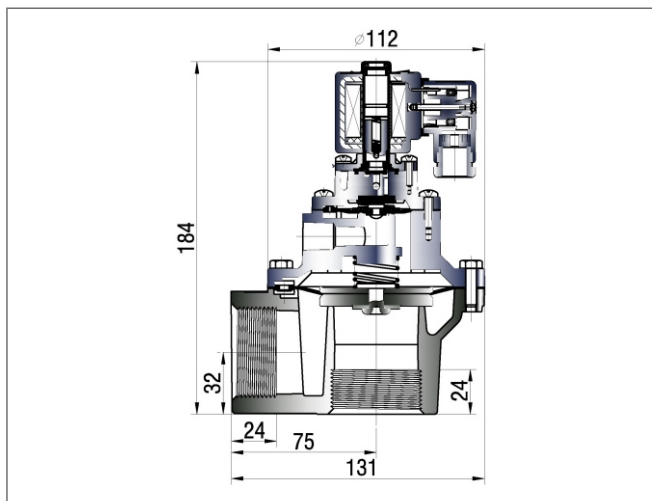
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 2.2 MAJ-Z-1型 40 (1 1/2")

产品编号 product's number : NO.4111103



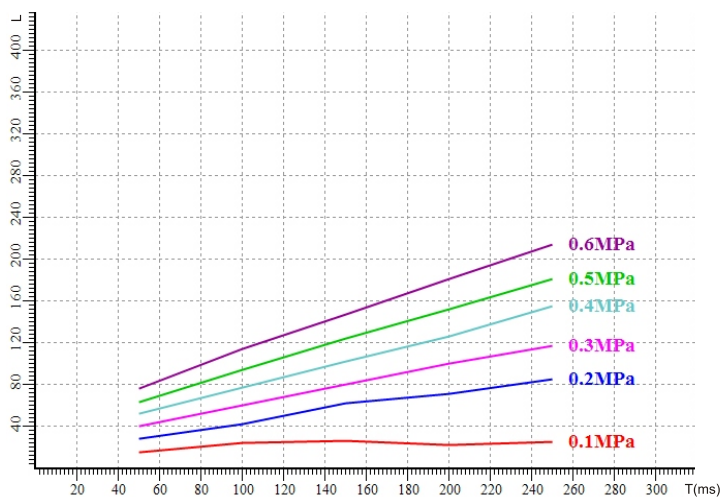
产品结构图 product structure diagram



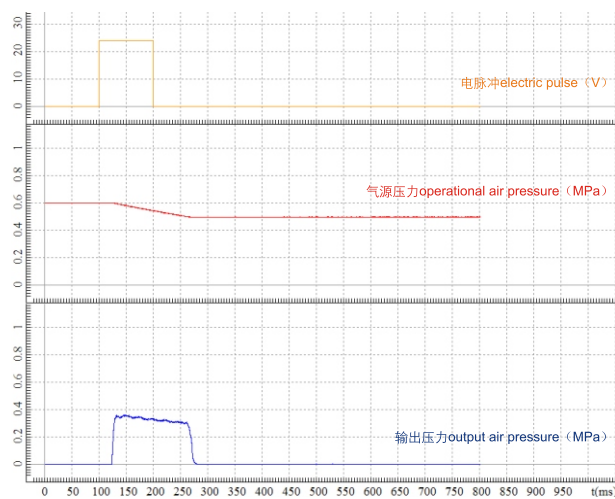
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	61
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	65
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	57
喷吹流量 blowing flow	L/Ms	0.69



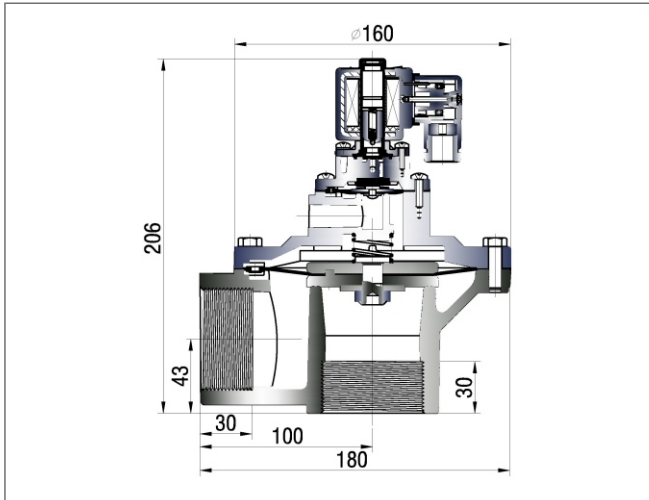
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 2.2 MAJ-Z-1型 50 (2")

产品编号 product's number : NO.4111104



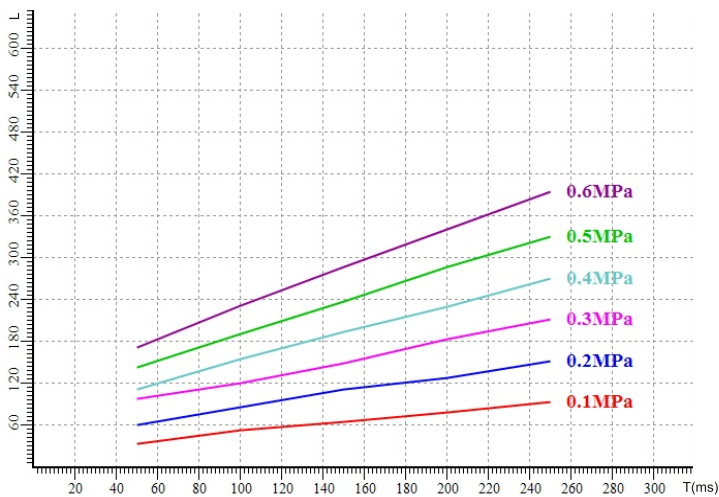
产品结构图 product structure diagram



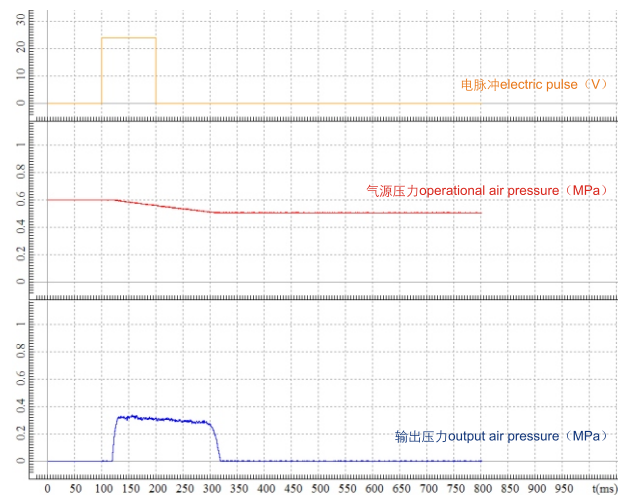
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	56
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	35
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	104
喷吹流量 blowing flow	L/Ms	1.20



喷吹气量曲线图 air flow curve

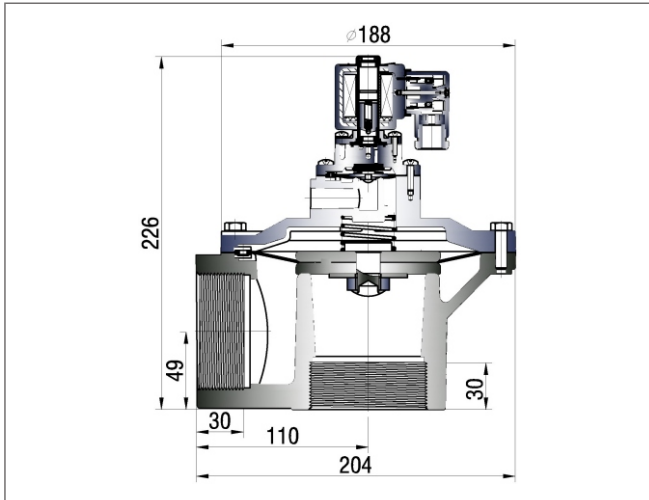


开关特性图 switch on/off character diagram



## 2.2 MAJ-Z-1型 62 (2 1/2")

产品编号 product's number : NO.4111105



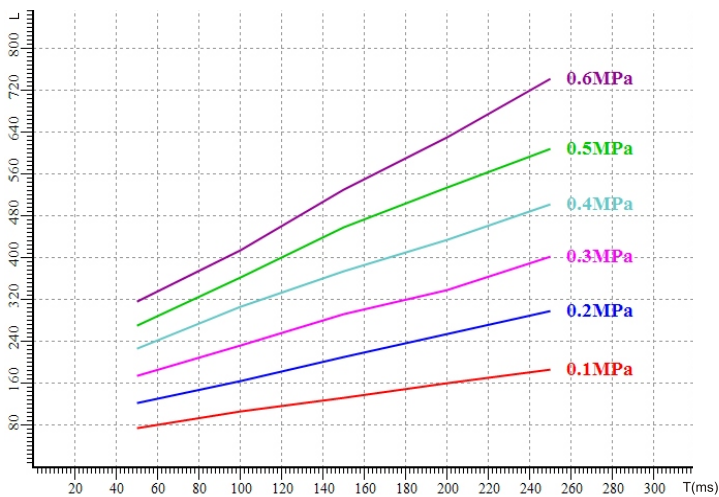
产品结构图 product structure diagram



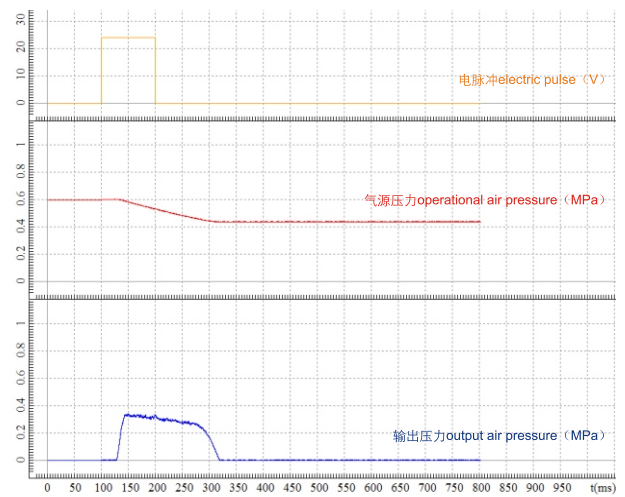
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	57
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	22
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	100
喷吹流量 blowing flow	L/Ms	2.17



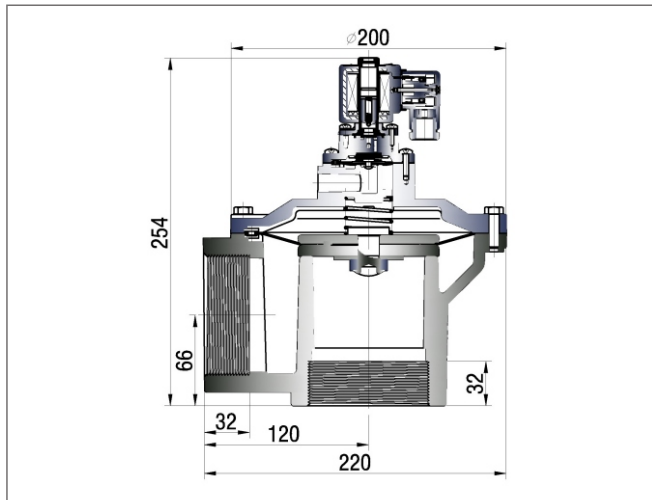
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 2.2 MAJ-Z-1型 76 (3")

产品编号 product's number : NO.4111106



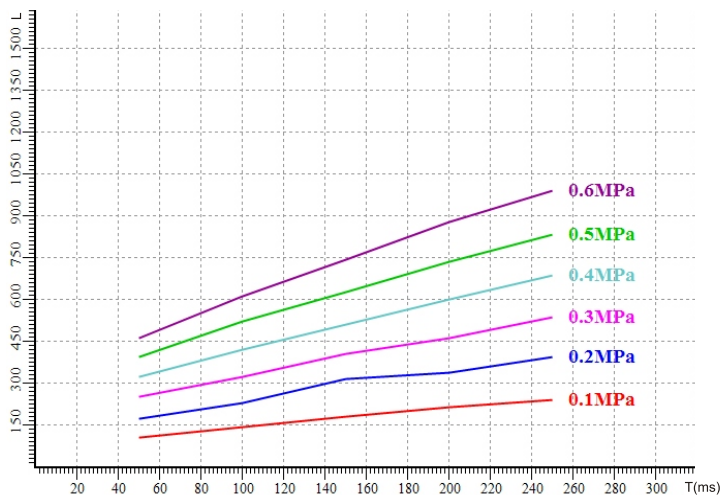
产品结构图 product structure diagram



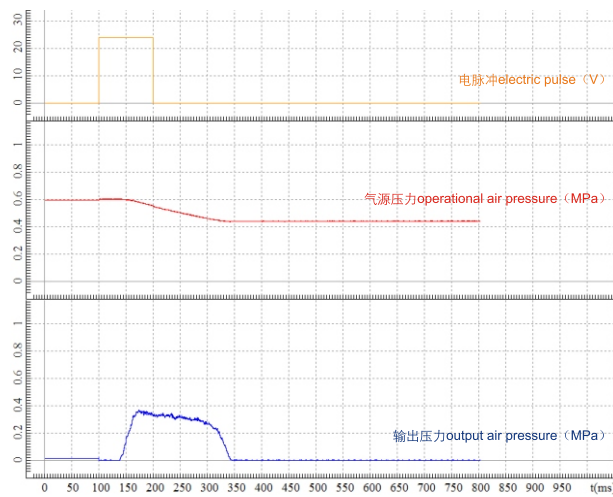
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	61
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	14
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	112
喷吹流量 blowing flow	L/Ms	2.79



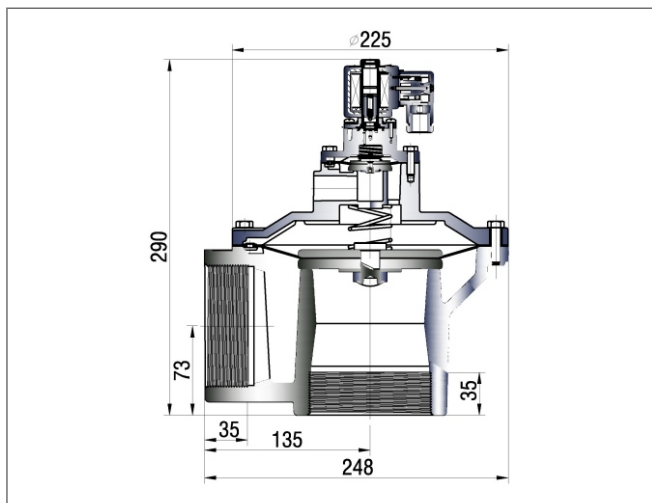
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 2.2 MAJ-Z-1型 89 (3 1/2")

产品编号 product's number : NO.4111107



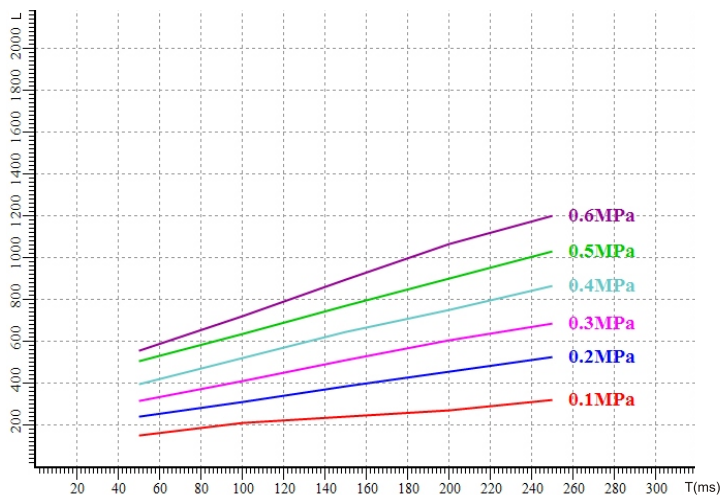
产品结构图 product structure diagram



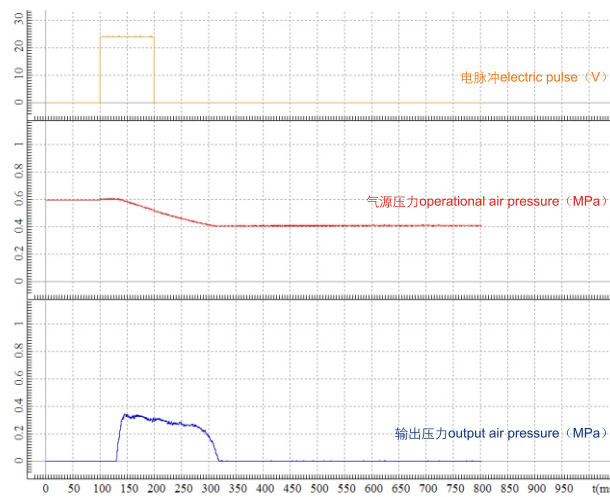
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	59
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	25
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	93
喷吹流量 blowing flow	L/Ms	3.77



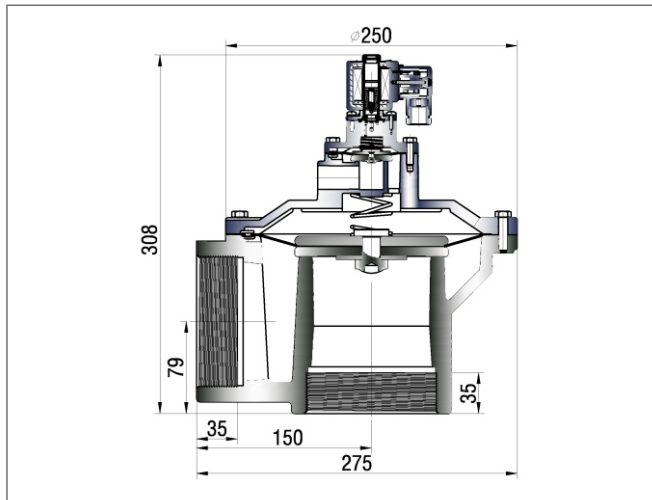
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 2.2 MAJ-Z-1型 102 (4")

产品编号 product's number : NO.4111108



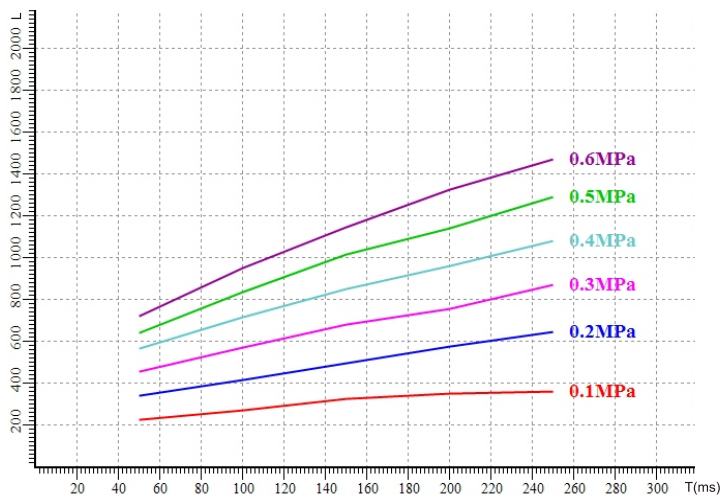
产品结构图 product structure diagram



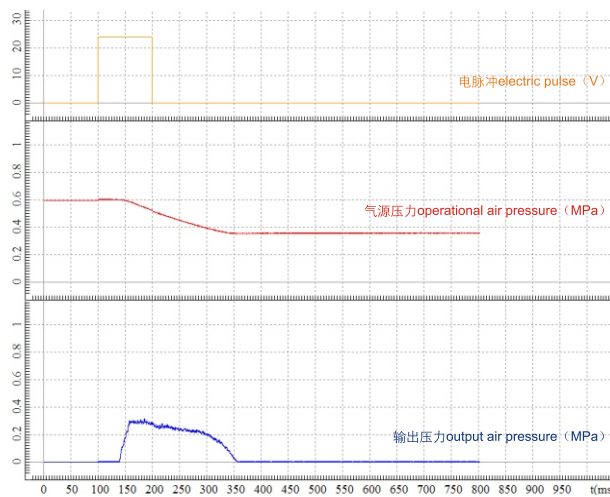
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	56
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	16
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	121
喷吹流量 blowing flow	L/Ms	4.29

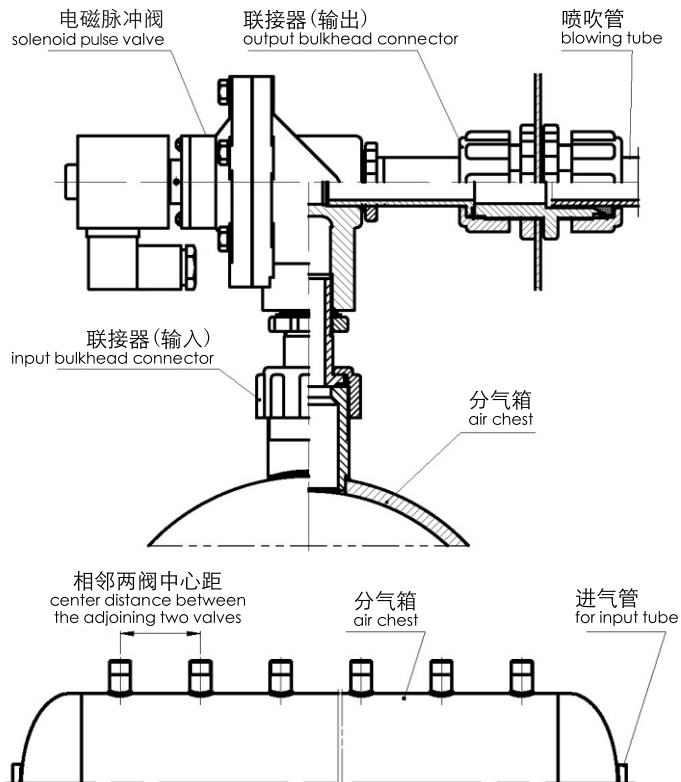


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

### 2.3 MAJ-Z-1型安装方法 (1) MAJ-Z-1 INSTALLATION(1)

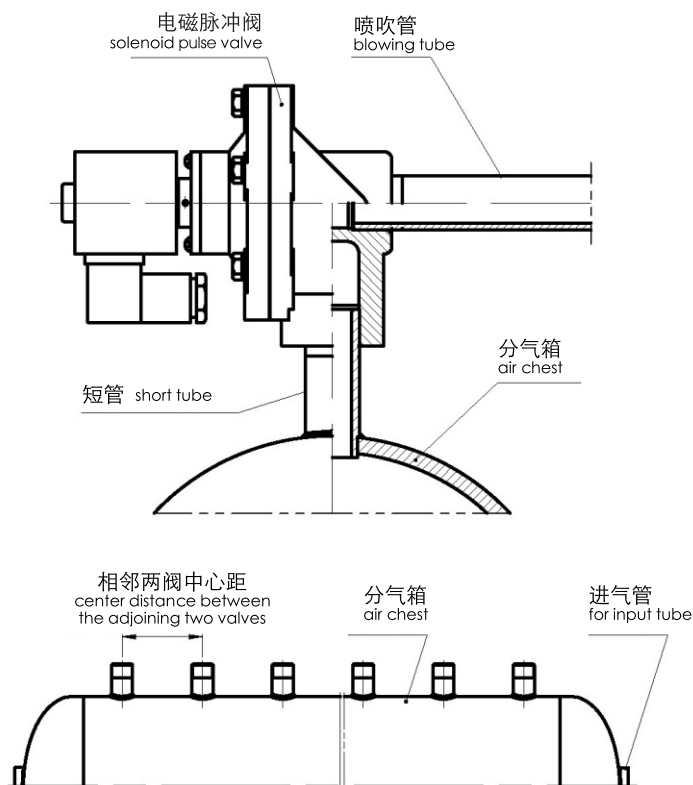


单位unit: mm

规格 size	分气箱(圆) air chest (round)			联接器 connector tube		喷吹管 blowing tube		相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole	输入端 Input port	输出端 Output port	外径 external diameter	内径 internal diameter	
20 (3/4")	Φ114	Φ20	Φ41.5	FAP-C-1-20	FAP-A-3-20	Φ27	Φ20	90
25 (1")	Φ146	Φ20	Φ50.5	FAP-C-1-25	FAP-C-3-25	Φ34	Φ25	106
40(1 1/2")	Φ168	Φ25	Φ66.5	FAP-C-1-40	FAP-C-3-40	Φ48	Φ40	122



## 2.3 MAJ-Z-1型安装方法 (2) MAJ-Z-1 INSTALLATION(2)



单位unit: mm

规格 size	分气箱(圆) air chest (round)					喷吹管 blowing tube			相邻二阀 中心距 center distance between the adjoining two valves
	外径 externa diameter	进气管 内径 internal diameter for input tube	短管 short tube			外径 external diameter	内径 internal diameter	螺纹长度 length of thread of screw	
			外径 externa diameter	内径 internal diameter	螺纹长度 length of thread of screw				
20 (3/4")	Φ114	Φ20	Φ27	Φ20	20	Φ27	Φ20	20	90
25 (1")	Φ146	Φ20	Φ34	Φ25	20	Φ34	Φ25	20	106
40 (1 1/2")	Φ168	Φ25	Φ48	Φ40	25	Φ48	Φ40	25	122
50 (2")	Φ219	Φ40	Φ60	Φ50	25	Φ60	Φ50	25	170
62(2 1/2")	Φ273	Φ50	Φ76	Φ62	25	Φ76	Φ62	25	198
76(3")	Φ325	Φ62	Φ89	Φ76	30	Φ89	Φ76	30	210
89(3 1/2")	Φ351	Φ76	Φ102	Φ89	30	Φ102	Φ89	30	235
102(4")	Φ402	Φ76	Φ114	Φ102	30	Φ114	Φ02	30	260

## 3. DMF-MAJ-Z-2型 DMF-MAJ-Z-2 TYPE

产品编号 product's number : NO.4111200

DMF-MAJ-Z-2系列产品照片  
DMF-MAJ-Z-2 series products' photograph

DMF-MAJ-Z-2型电磁脉冲阀采用橡胶膜片作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-MAJ-Z-2 electromagnetic valve employs the rubber diaphragm as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

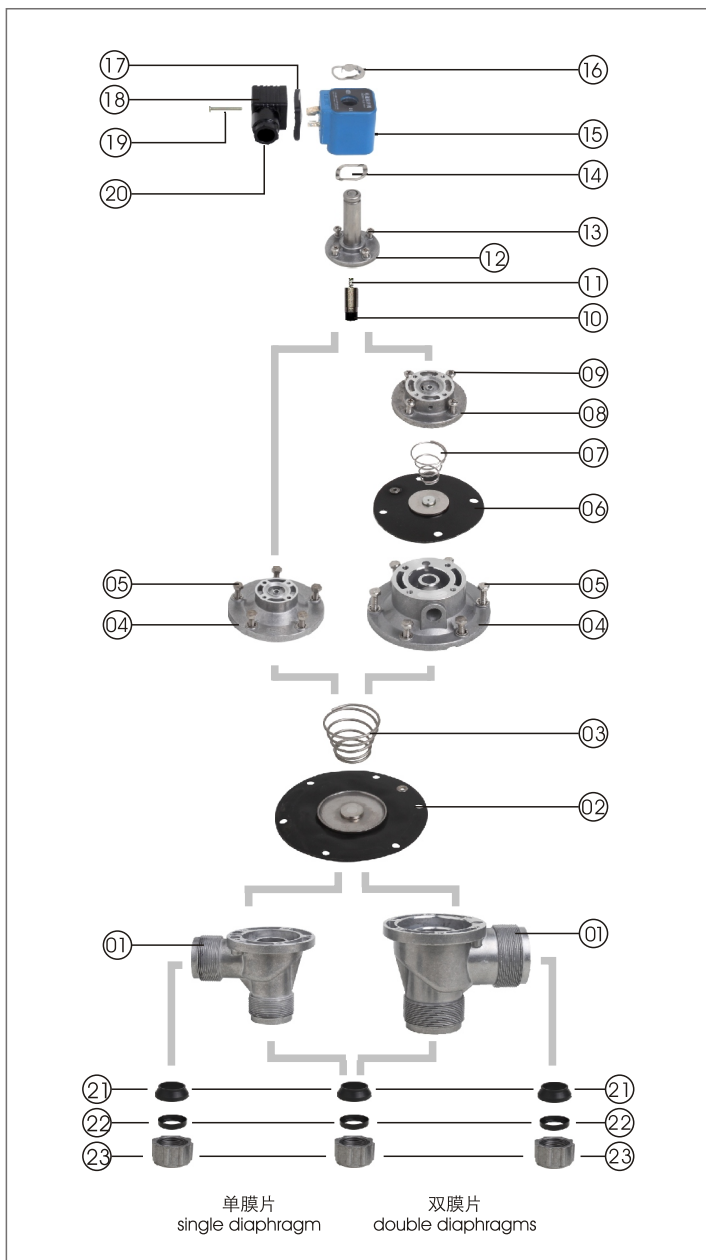
本系列脉冲阀的输入口与输出口夹角为 $90^\circ$ ，称为直角阀。其输入、输出接口为外螺纹，并配有压紧螺母。分气箱（气包）上的短管和喷吹管分别插入阀的输入、输出口的锥形密封圈内，并拧紧压紧螺母。安装方便，气流通畅，能提供理想的清灰振动气流。适用于各种过滤单元的清灰。

The angle between the input and output ports of pulse valves within this series is  $90^\circ$ , which could be called as Right Angle Valve. It's input and output interface are designed with outer thread equipping with press nut. During the installation, one should insert the short tube on the air chest (air bag) and the injection pipe into the conical sealing rings of input and output interfaces respectively and tighten the press nut. The valve is easy to install which is applicable for various kinds of filter equipments by providing satisfactory cleaning vibrating flow.

本系列电磁脉冲阀有：20mm( $3/4"$ )、25mm(1")、40mm( $1\ 1/2"$ )三种规格。其中：20mm( $3/4"$ )、25mm(1")为单膜片阀，40mm( $1\ 1/2"$ )为双膜片阀。

As three categories below: 20mm ( $3/4"$ )、25mm(1")、40mm( $1\ 1/2"$ ). Among which 20mm ( $3/4"$ ) and 25mm (1") are single diaphragm valve and 40mm ( $1\ 1/2"$ ) is double diaphragms valve.

### 3.1 MAJ-Z-2型分解图及明细表 MAJ-Z-2 SEPARATE DIAGRAM AND INDEX LIST



DMF-MAJ-Z-2电磁脉冲阀分解图  
DMF-MAJ-Z-2 separate diagram of valve

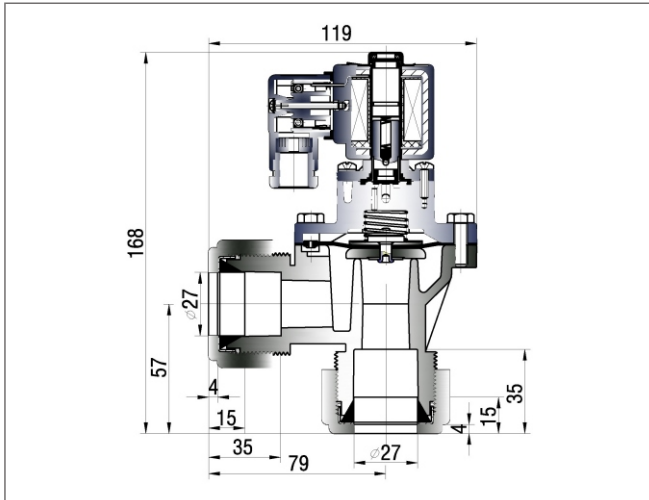
#### 明细表 illustrative list

序号 Number	零件名称 components name	配置 Disposition	
		单膜片 single diaphragm	双膜片 double diaphragms
01	阀体 valve body	1	1
02	膜片 (主) diaphragm (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	4-5	6
06	膜片 (副) diaphragm (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1
21	锥形密封圈 cone sealing washer	2	2
22	碗形垫圈 bowl washer	2	2
23	压紧螺母 press nut	2	2



### 3.2 MAJ-Z-2型 20 (3/4")

产品编号 product's number : NO.4111201



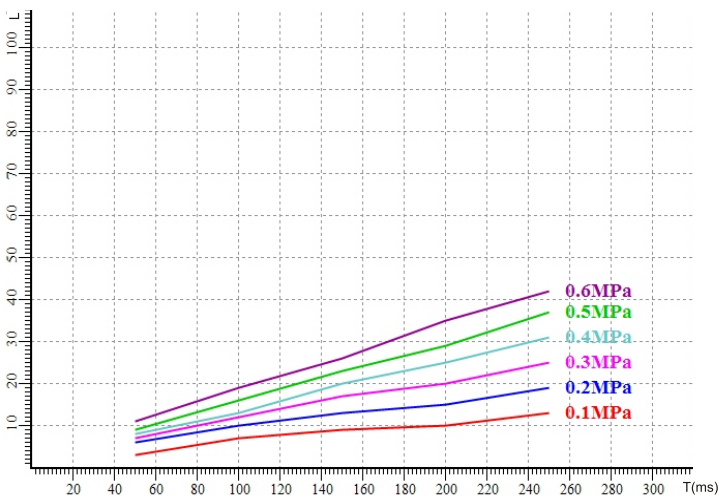
产品结构图 product structure diagram



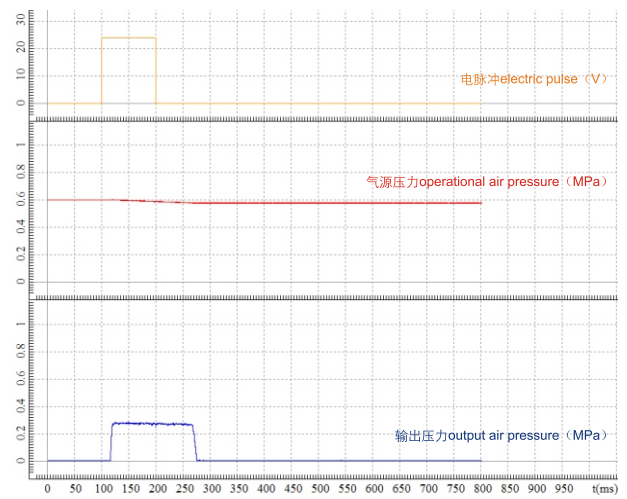
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	55
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	74
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	65
喷吹流量 blowing flow	L/Ms	0.10



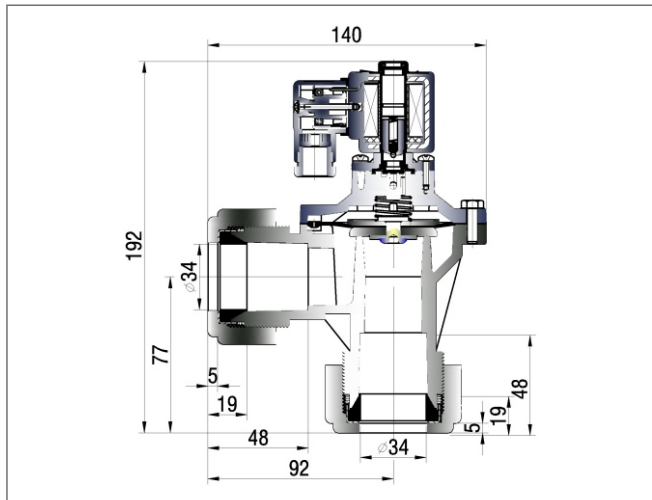
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

### 3.2 MAJ-Z-2型 25 (1")

产品编号 product's number : NO.4111202

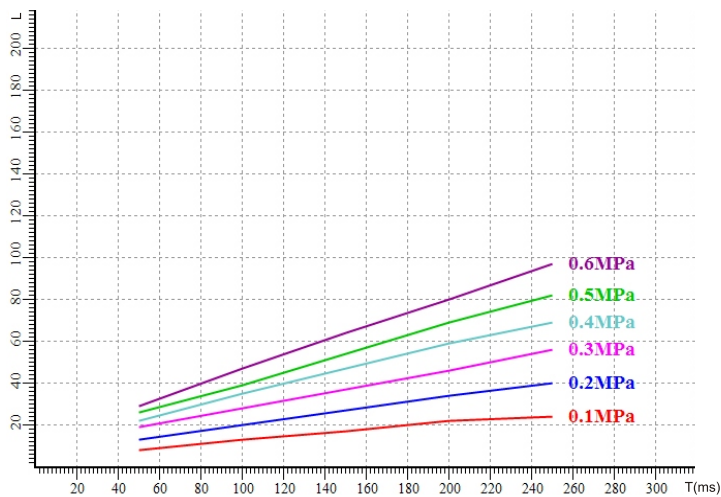


产品结构图 product structure diagram

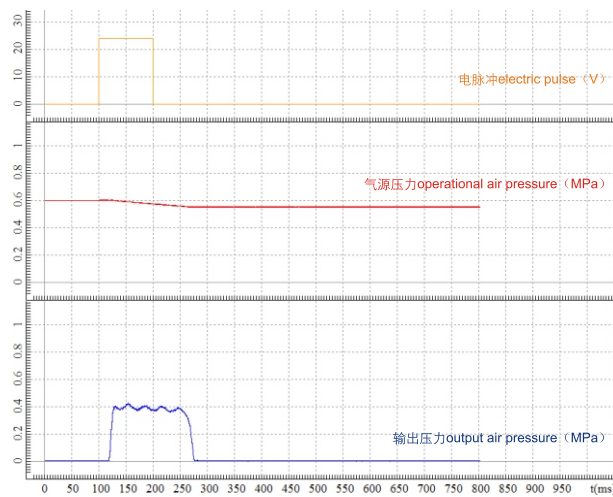
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	71
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	39
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	61
喷吹流量 blowing flow	L/Ms	0.27



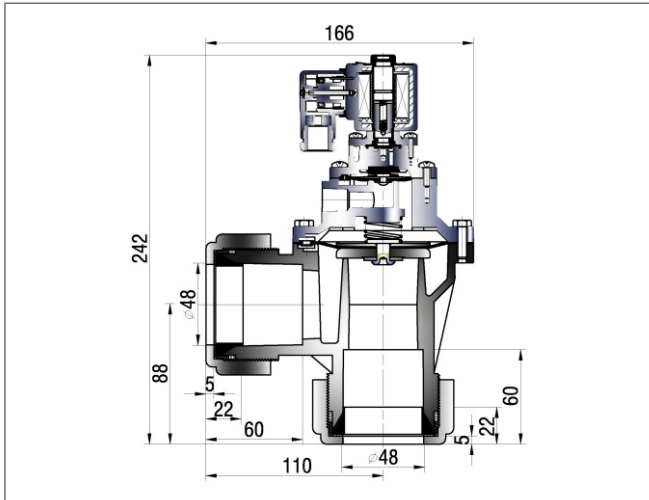
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

### 3.2 MAJ-Z-2型 40 (1 1/2")

产品编号 product's number : NO.4111203



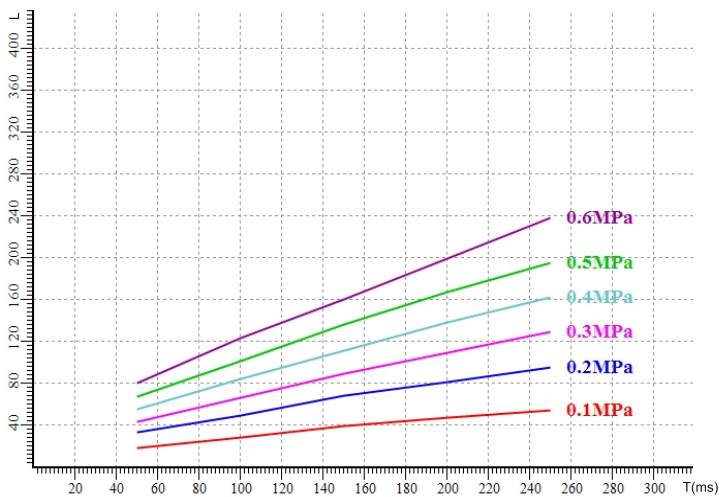
产品结构图 product structure diagram



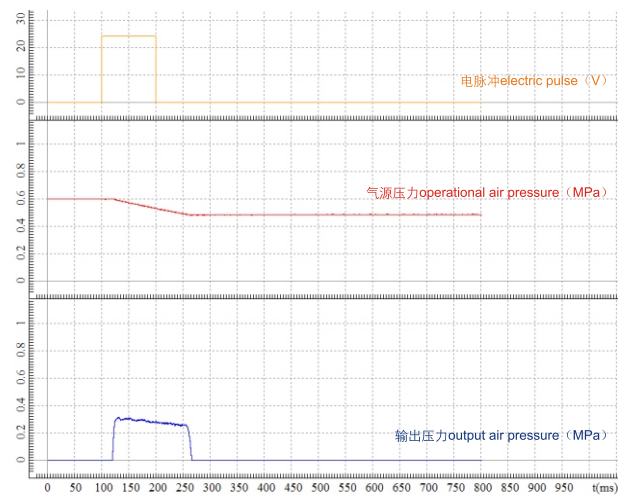
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	58
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	64
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	49
喷吹流量 blowing flow	L/Ms	0.82



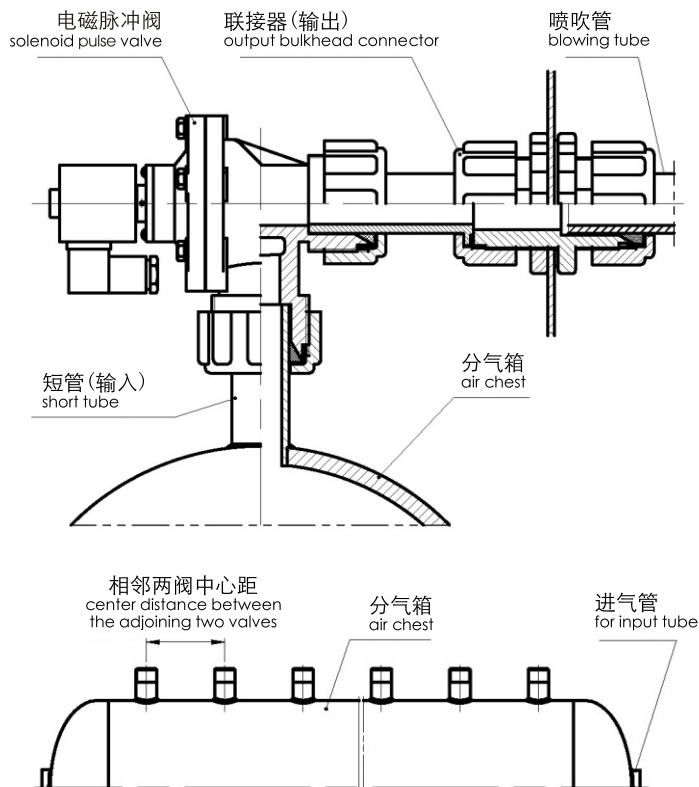
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram



### 3.3 MAJ-Z-2型安装方法 (1) MAJ-Z-2 INSTALLATION(1)

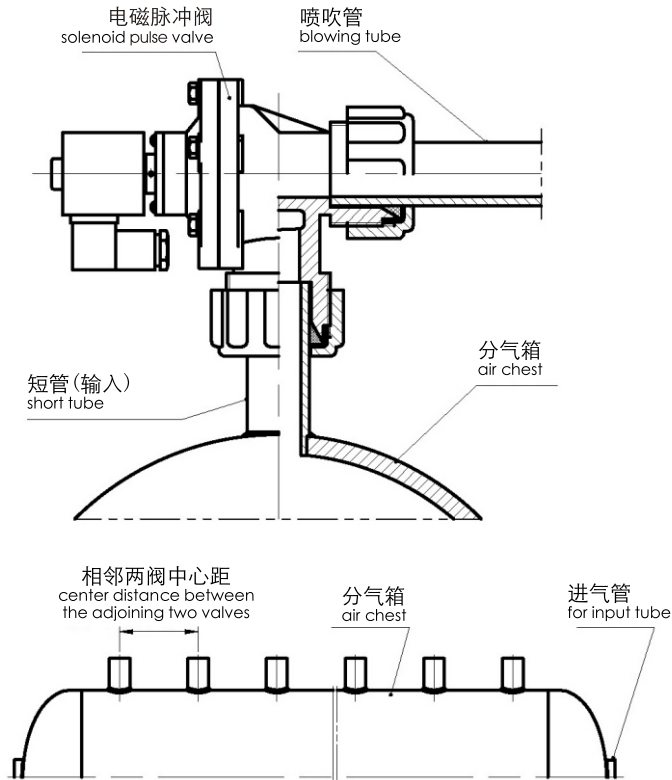


单位unit: mm

规格 size	分气箱(圆) air chest (round)					输出端连接器 output bulkhead connector	喷吹管 blowing tube			相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	短管 short tube				外径 external diameter	内径 internal diameter	插入长度 length to insert	
			外径 external diameter	内径 internal diameter	插入长度 length to insert					
20 (3/4")	Φ114	Φ25	Φ27	Φ20	32	FAP-A-2-20	Φ27	Φ20	42	90
25 (1")	Φ146	Φ25	Φ34	Φ25	48	FAP-A-2-25	Φ34	Φ25	48	106
40 (1 1/2")	Φ168	Φ25	Φ48	Φ40	60	FAP-A-2-40	Φ48	Φ40	58	122



### 3.3 MAJ-Z-2型安装方法 (2) MAJ-Z-2 INSTALLATION(2)



单位unit: mm

规格 size	分气箱(圆) air chest (round)					喷吹管 blowing tube			相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	短管 short tube			外径 external diameter	内径 internal diameter	插入长度 length to insert	
			外径 external diameter	内径 internal diameter	插入长度 length to insert				
20 (3/4")	Φ114	Φ20	Φ27	Φ20	35	Φ27	Φ20	32	90
25 (1")	Φ146	Φ20	Φ34	Φ25	48	Φ34	Φ25	48	106
40 (1 1/2")	Φ168	Φ25	Φ48	Φ40	60	Φ48	Φ40	60	122



## 4. DMF-MAJ-Z-3型 DMF-MAJ-Z-3 TYPE

产品编号 product's number : NO.4111300

DMF-MAJ-Z-3系列产品照片  
DMF-MAJ-Z-3 series products' photograph

DMF-MAJ-Z-3型电磁脉冲阀采用橡胶膜片作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-MAJ-Z-3 electromagnetic valve employs the rubber diaphragm as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

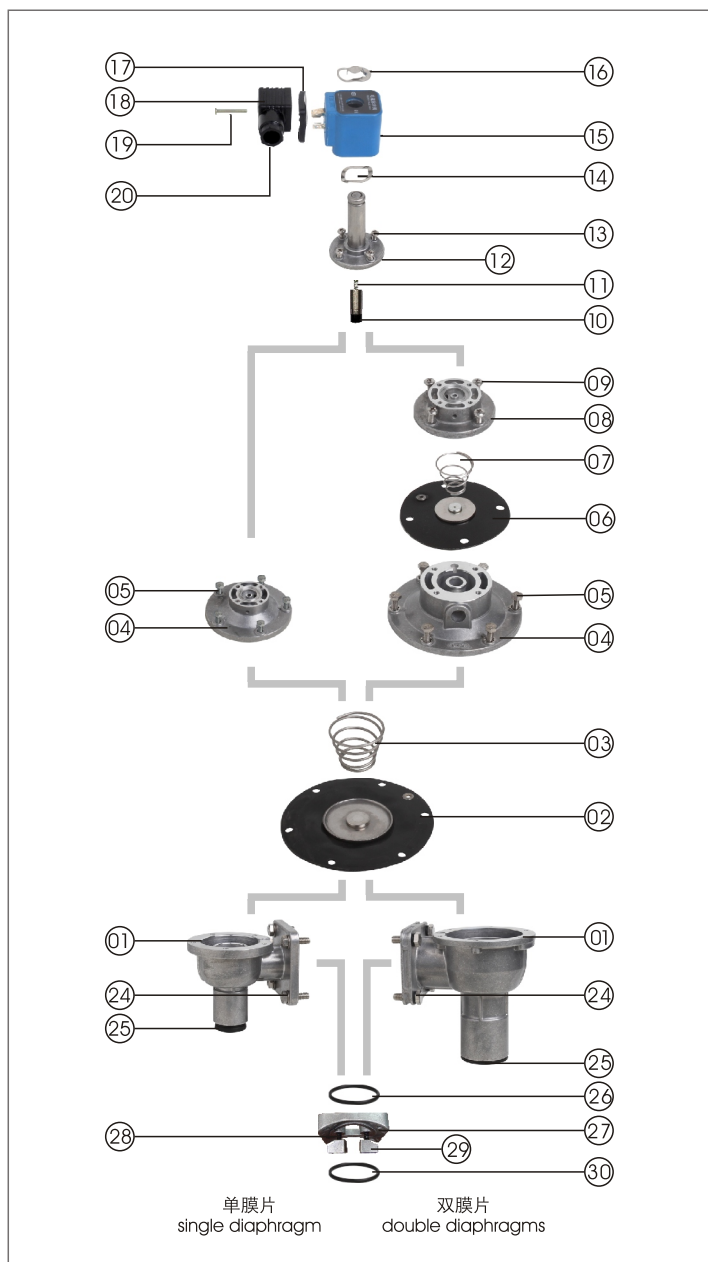
本系列脉冲阀的输入口与输出口夹角为 $90^\circ$ ，称为直角阀。其输入口通径大于输出口通径，使之具有更好的喷吹特性。输入口与分气箱（气包）法兰连接，喷吹管插入输出口。安装方便，气流通畅，能提供理想的清灰振动气流。适用于各种过滤单元的清灰。

The angle between the input and output ports of pulse valves within this series is  $90^\circ$ , which could be called as Right Angle Valve. Its input and output interfaces are designed to have internal threads connecting the short tube on the air chest (air bag) and the injection pipe thread respectively. The valve is easy to install which is applicable for various kinds of filter equipments by providing satisfactory cleaning vibrating flow.

本系列电磁脉冲阀有：20mm( $3/4$ "）、25mm(1"）、40mm( $1\frac{1}{2}$ ")三种规格。其中：20mm( $3/4$ ")为单膜片阀，25mm(1"）、40mm( $1\frac{1}{2}$ ")为双膜片阀。

Electromagnetic pulse valves of this series are classified as three categories below: 20mm ( $3/4$ "）、25mm(1"）、40mm( $1\frac{1}{2}$ "). Among which 20mm ( $3/4$ ") is single diaphragm valve and 25mm (1"）、40mm ( $1\frac{1}{2}$ ") are double diaphragms valve.

### 4.1 MAJ-Z-3型分解图及明细表 MAJ-Z-3 SEPARATE DIAGRAM AND INDEX LIST



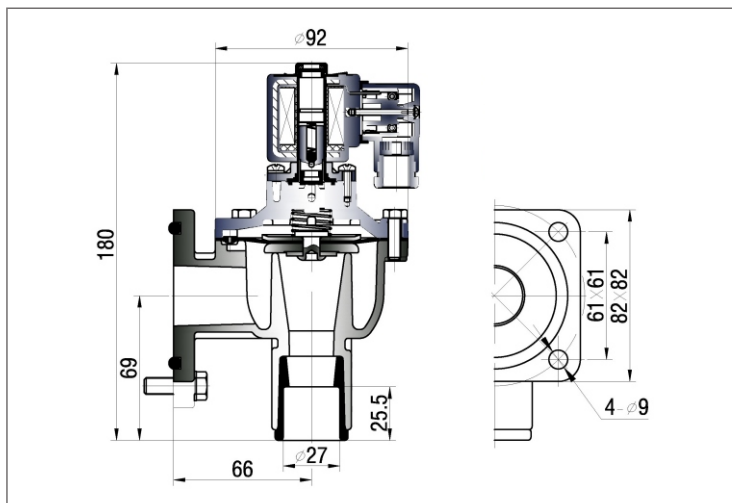
DMF-MAJ-Z-3电磁脉冲阀分解图  
DMF-MAJ-Z-3 separate diagram of valve

#### 明细表 illustrative list

序号 Number	零件名称 components name	配置 Disposition	
		单膜片 single diaphragm	双膜片 double diaphragms
01	阀体 valve body	1	1
02	膜片 (主) diaphragm (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	5	6
06	膜片 (副) diaphragm (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1
21-23	-----		
24	螺钉 screw	4	4
25	密封套 sealing gland	1	1
26	O型密封圈 O sealing washer	1	1
27	弧形法兰 curve flange	1	1
28	螺钉 screw	2	2
29	异形螺母 special-shaped nut	2	2
30	O型密封圈 O sealing washer	1	1

### 4.2 MAJ-Z-3型 20 (3/4")

产品编号 product's number : NO.4111301



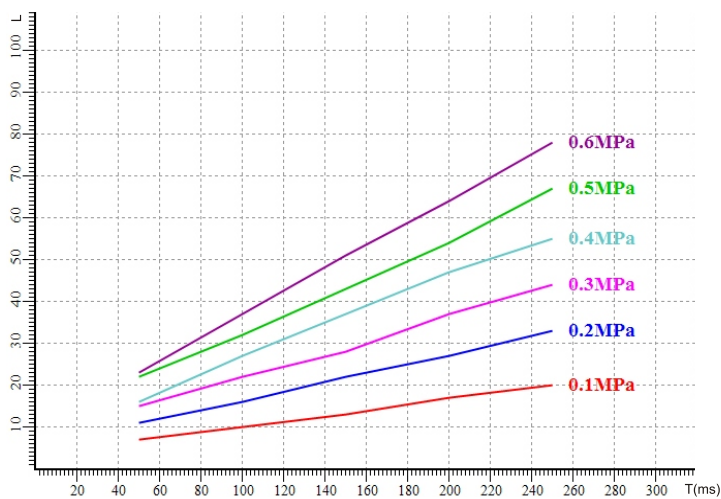
产品结构图 product structure diagram



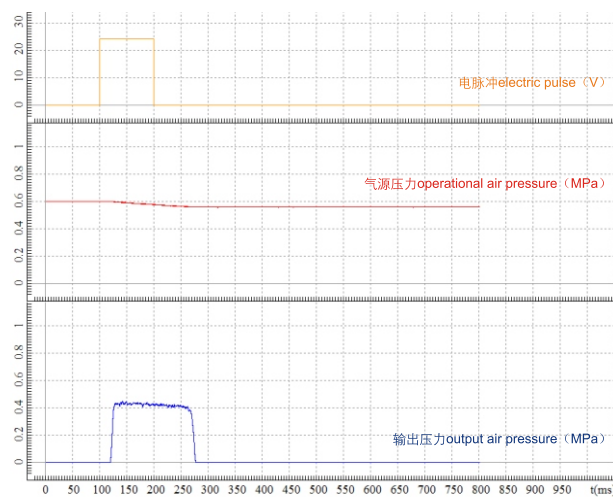
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	74
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	47
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	57
喷吹流量 blowing flow	L/Ms	0.21



喷吹气量曲线图 air flow curve

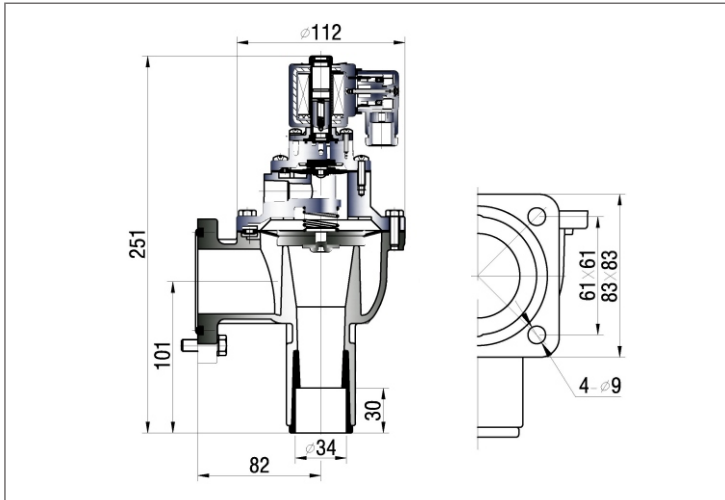


开关特性图 switch on/off character diagram



## 4.2 MAJ-Z-3型 25 (1")

产品编号 product's number : NO.4111302

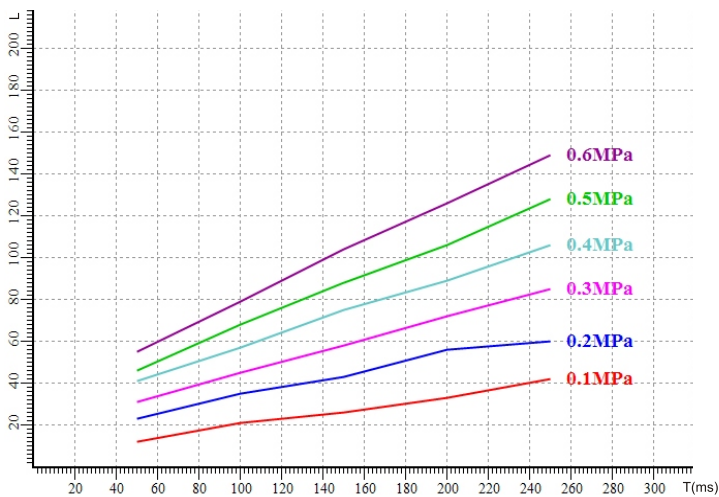


产品结构图 product structure diagram

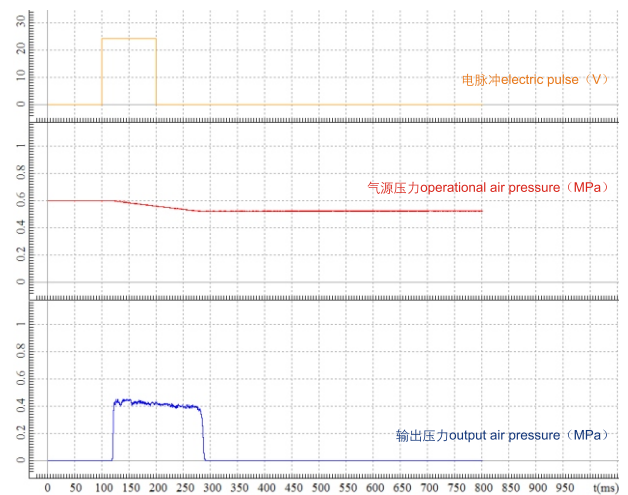
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	76
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	41
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	71
喷吹流量 blowing flow	L/Ms	0.45



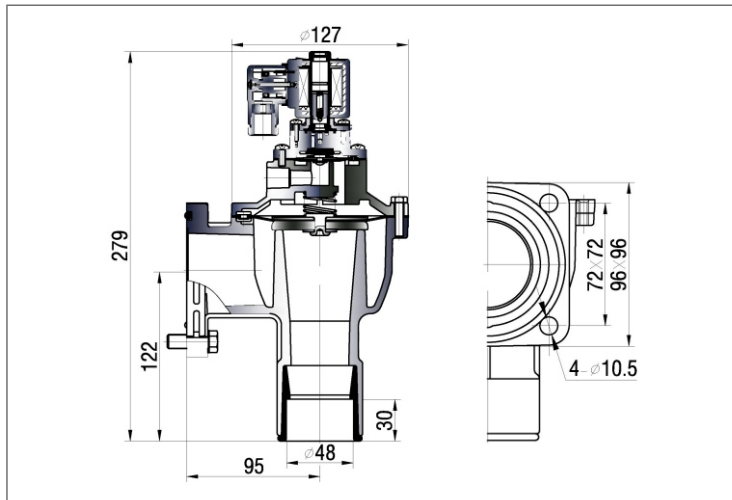
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

### 4.2 MAJ-Z-3型 40 (1 1/2")

产品编号 product's number : NO.4111303

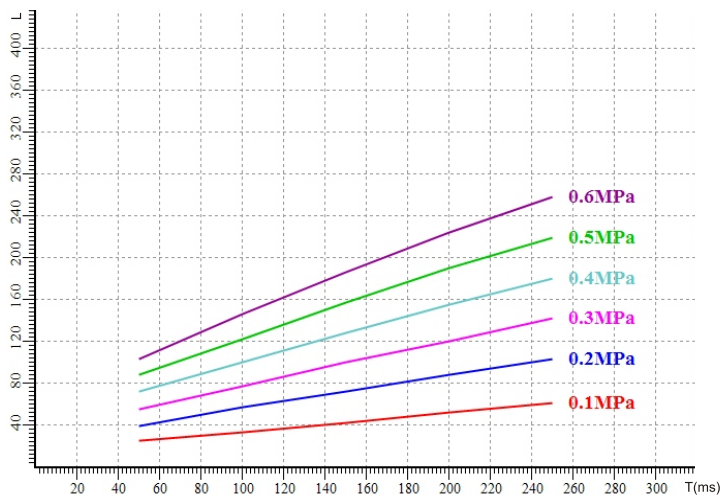


产品结构图 product structure diagram

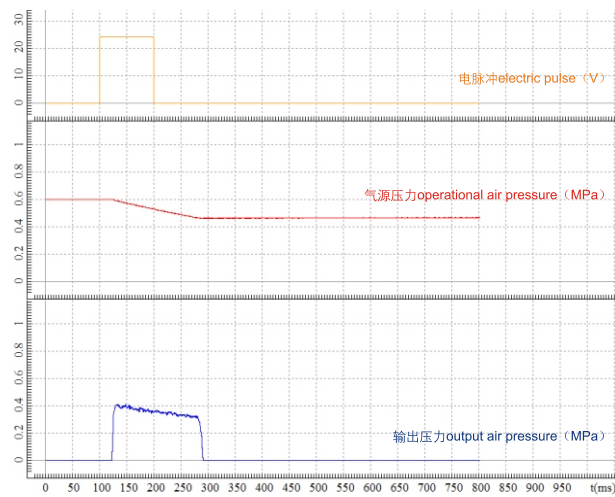
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	69
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	68
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	69
喷吹流量 blowing flow	L/Ms	0.87

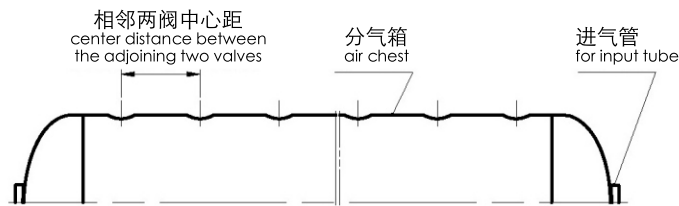
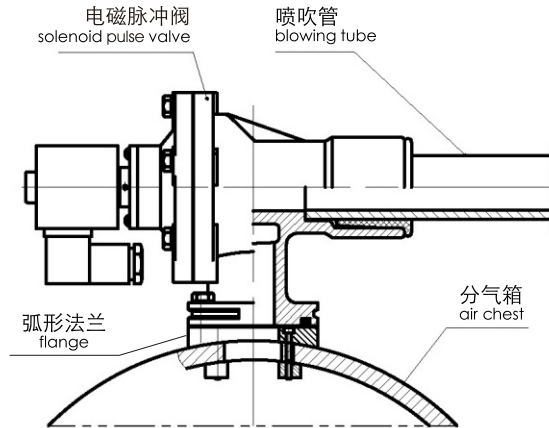


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

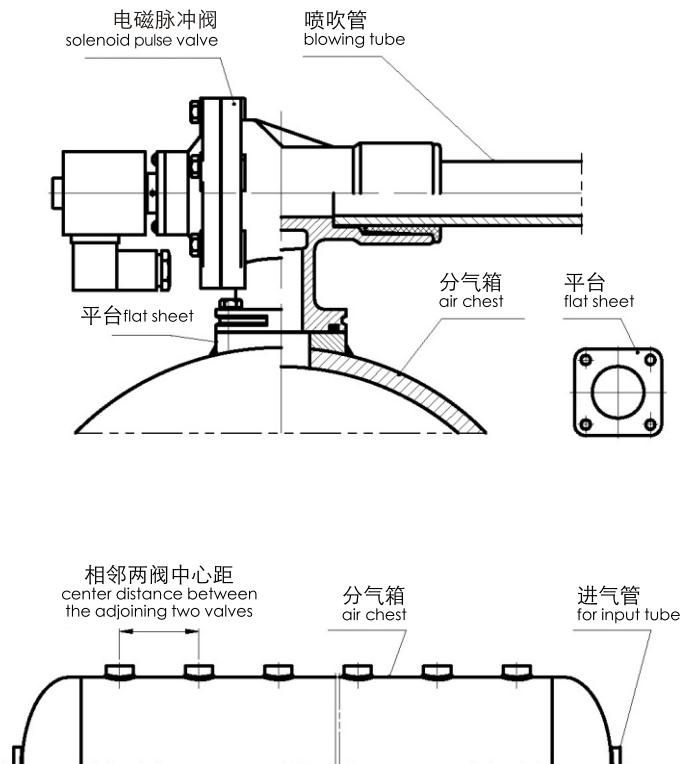
### 4.3 MAJ-Z-3型安装方法 (1) MAJ-Z-3 INSTALLATION(1)



单位unit: mm

规格 size	分气箱(圆) air chest (round)			喷吹管 blowing tube			相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管内径 internal diameter for input tube	开孔尺寸 size for installation hole	外径 externa diameter	内径 internal diameter	插入长度 length to insert	
20 (3/4")	Φ114	Φ20	58	Φ27	Φ20	25	102
25 (1")	Φ146	Φ20	58	Φ34	Φ25	25	122
40 (1 1/2")	Φ168	Φ25	58	Φ48	Φ40	30	137

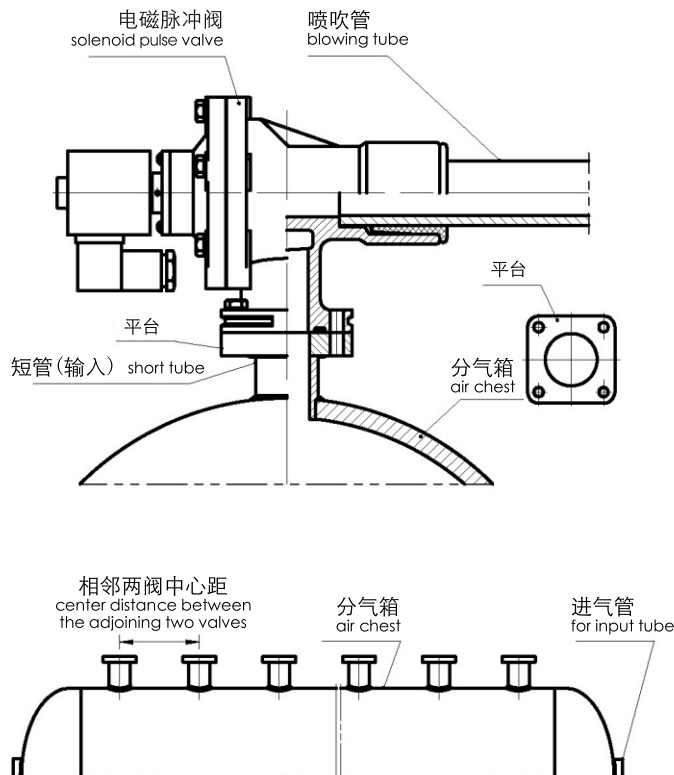
### 4.3 MAJ-Z-3型安装方法 (2) MAJ-Z-3 INSTALLATION(2)



单位unit: mm

规格 size	分气箱 (圆) air chest (round)				喷吹管 blowing tube			相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管内径 internal diameter for input tube	平台 flat sheet		外径 external diameter	内径 internal diameter	插入长度 length to insert	
			外形尺寸 external size	中心孔 central hole				
20 (3/4")	Φ114	Φ20	83X83	27	Φ27	Φ20	25	102
25 (1")	Φ146	Φ20	83X83	43	Φ34	Φ25	25	122
40 (1 1/2")	Φ168	Φ25	96X96	53	Φ48	Φ40	30	137

### 4.3 MAJ-Z-3型安装方法 (3) MAJ-Z-3 INSTALLATION(3)



单位unit: mm

规格 size	分气箱(圆) air chest ( round)					喷吹管 blowing tube			相邻二阀 中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	带管平台 flat sheet of pipes			外径 external diameter	内径 internal diameter	插入长度 length to insert	
			短管 short tube		法兰尺寸 flange size				
			外径 external diameter	内径 internal diameter					
20 (3/4")	Φ114	Φ20	Φ34	Φ25	83X83	Φ27	Φ20	25	102
25 (1")	Φ146	Φ20	Φ48	Φ40	83X83	Φ34	Φ25	25	122
40 (1 1/2")	Φ168	Φ25	Φ60	Φ50	96X96	Φ48	Φ40	30	137

## 5. DMF-MAJ-Y-1型 DMF-MAJ-Y-1 TYPE

产品编号 product's number : NO.4112100

DMF-MAJ-Y-1系列产品照片  
DMF-MAJ-Y-1 series products' photograph

DMF-MAJ-Y-1 型电磁脉冲阀采用橡胶膜片作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-MAJ-Y-1 electromagnetic valve employs the rubber diaphragm as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

本系列脉冲阀直接安装在分气箱（气包）上，称为淹没式阀（也称嵌入式阀，低压阀）。将阀体凸缘上安装孔用螺栓与分气箱固定，输出口通过连接管延伸至分气箱外与除尘器喷吹管相连接。具有流通特性好，压力损失小，能在气源压力较低的场合提供理想的清灰振动气流，适用于各种过滤单元的清灰。

Valves of this series are directly installed on the air chest (air bag) which is called immersion valve (also called as injection valve or low pressure valve). During the installation, one should fix the mounting hole on the collar flange of the valve with the air chest through bolts and connect the dust blowing tube with the output port extension tube outside the air chest. The character of the valve is good flow, low pressure loss and could provide satisfactory cleaning vibrating flow in the low pressure environments. The valve is applicable for various kinds of filter equipments.

本系列电磁脉冲阀有：25mm(1")、40mm(1 1/2")、50mm(2")、62mm(2 1/2")、76mm(3")、89mm(3 1/2")、102mm(4") 和 102mm(4")W 八种规格。其中 25mm(1") 为单膜片阀，40mm(1 1/2") ~ 102mm(4") 为双膜片阀。

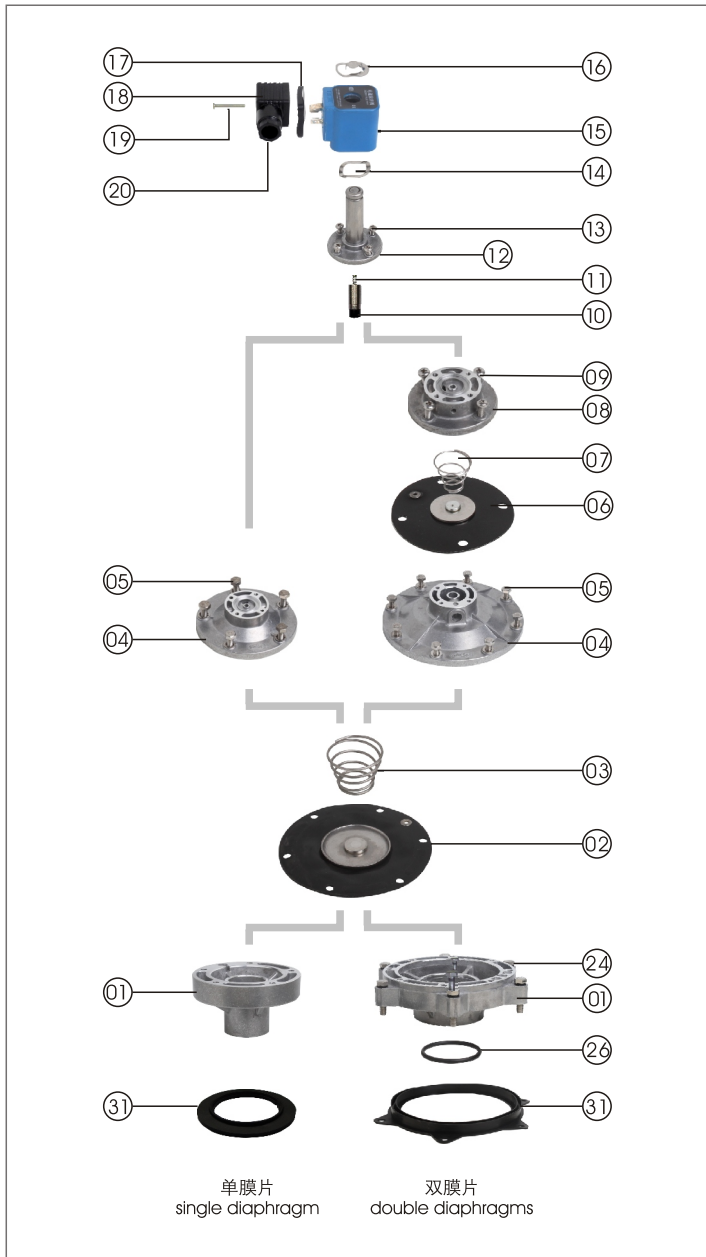
Electromagnetic pulse valves of this series are classified as eight categories below: 25mm(1"), 40mm(1 1/2"), 50mm(2"), 62mm(2 1/2"), 76mm(3"), 89mm(3 1/2"), 102mm(4"), 102mm(4")W. Among which 25mm(1") is single diaphragm valve and 40mm(1 1/2") ~ 102mm(4") are double diaphragms valve.

脉冲阀输出口与连接管有螺纹连接和滑动连接二种方式。其中 25mm(1")、40mm(1 1/2") 为螺纹连接，50mm(2") ~ 102mm(4") 为滑动连接。

The connection between pulse valve output tube and connection tube are accomplished in two ways: thread connection and slide connection.



5.1 MAJ-Y-1型分解图及明细表 MAJ-Y-1 SEPARATE DIAGRAM AND INDEX LIST



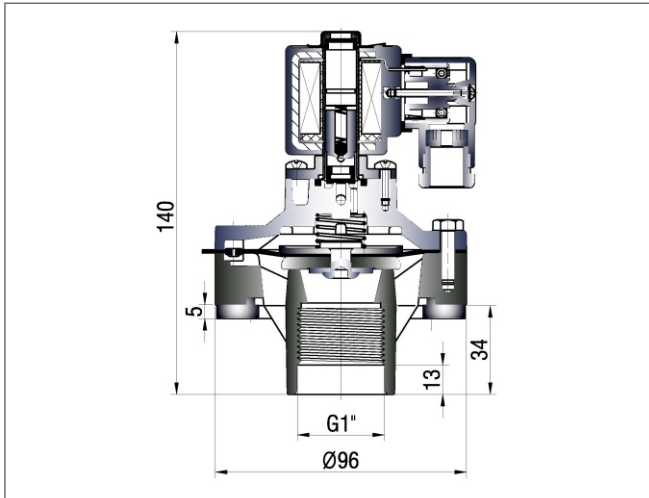
DMF-MAJ-Y-1电磁脉冲阀分解图  
DMF-MAJ-Y-1 separate diagram of valve

明细表 illustrative list

序号 Number	零件名称 components name	配置 disposition	
		单膜片 single diaphragm	双膜片 double diaphragms
01	阀体 valve body	1	1
02	膜片 (主) diaphragm (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	5	6-8
06	膜片 (副) diaphragm (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1
21-23	-----	1	1
24	螺栓 bolt		6
25	-----		
26	O型密封圈 O sealing washer	1	1
27-30	-----		
31	密封圈 sealing washer	1	1

## 5.2 MAJ-Y-1型 25 (1")

产品编号 product's number : NO.4112101



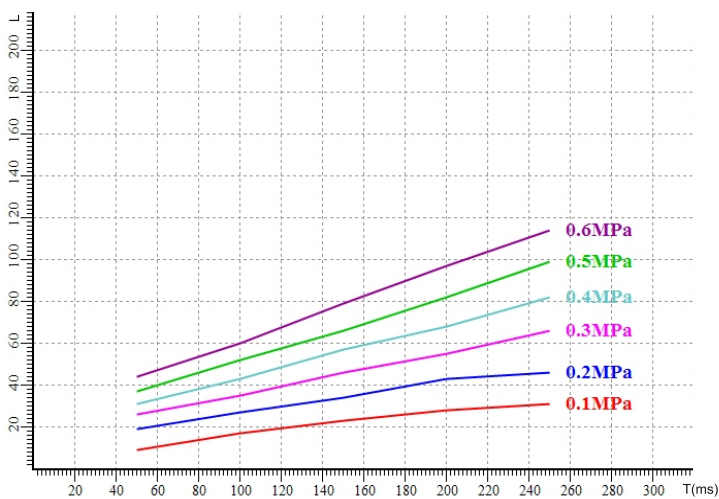
产品结构图 product structure diagram



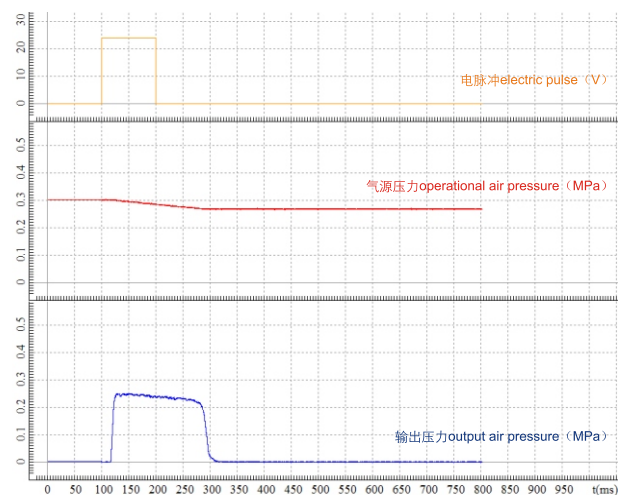
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	83
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	30
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	99
喷吹流量 blowing flow	L/Ms	0.16



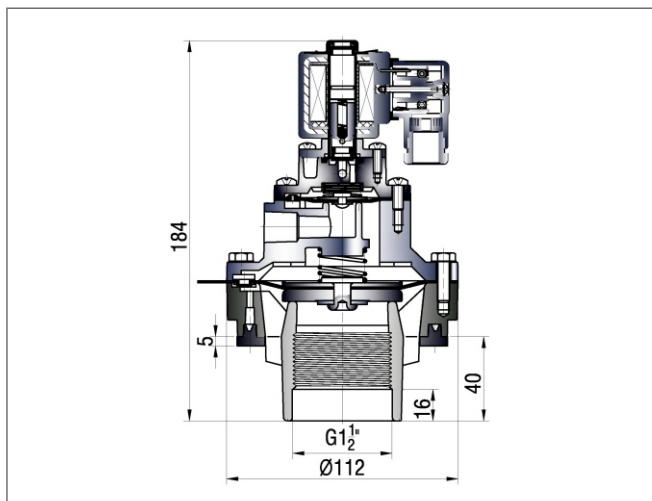
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 5.2 MAJ-Y-1型 40 (1 1/2")

产品编号 product's number : NO.4112102



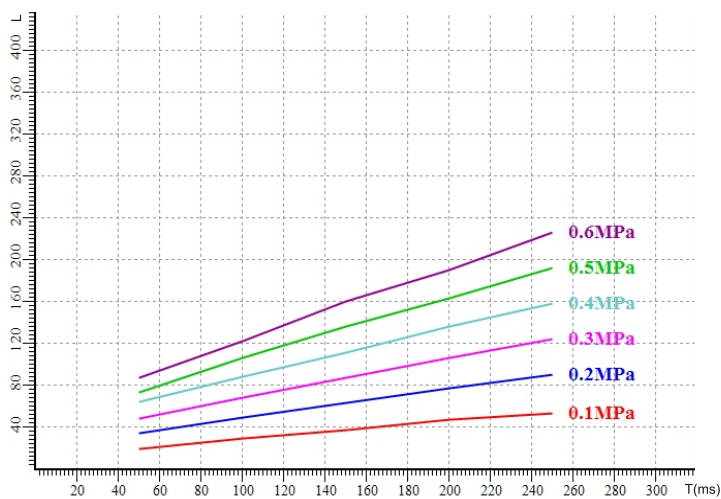
产品结构图 product structure diagram



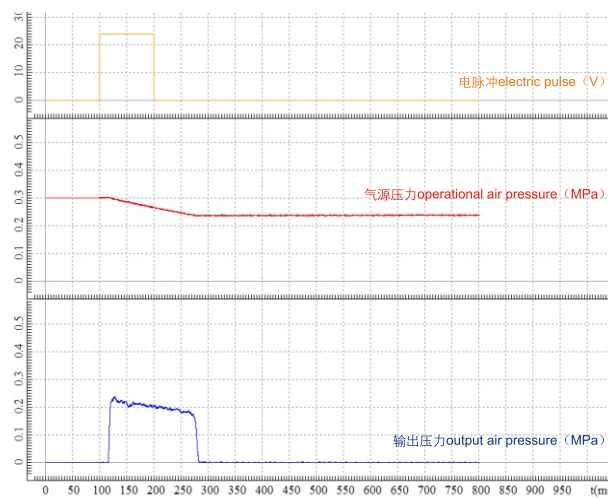
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	79
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	39
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	82
喷吹流量 blowing flow	L/Ms	0.41



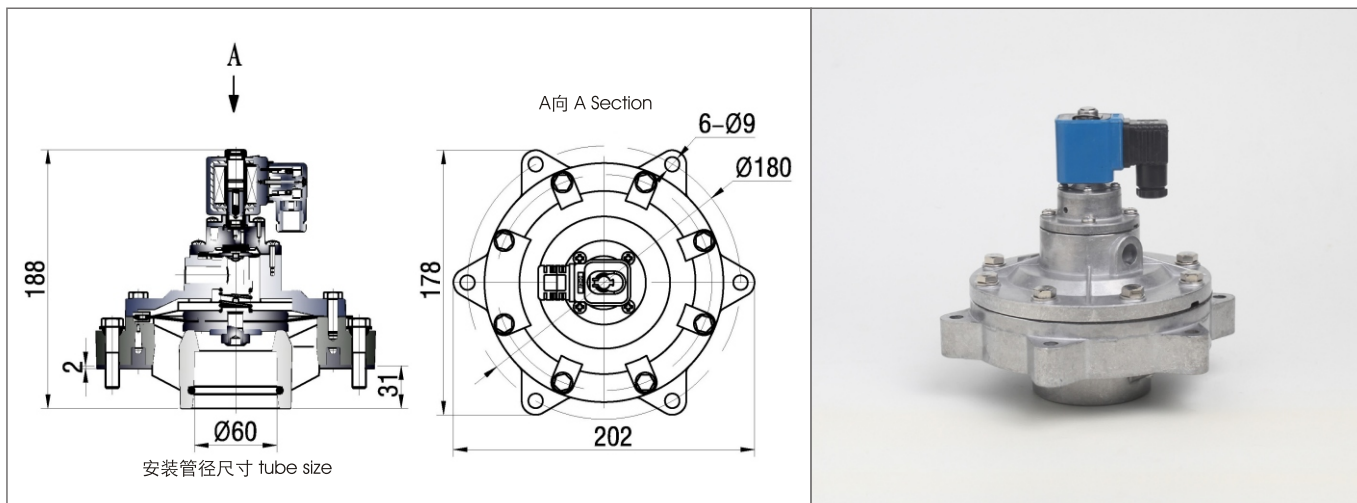
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

5.2 MAJ-Y-1型 50 (2")

产品编号 product's number : NO.4112103

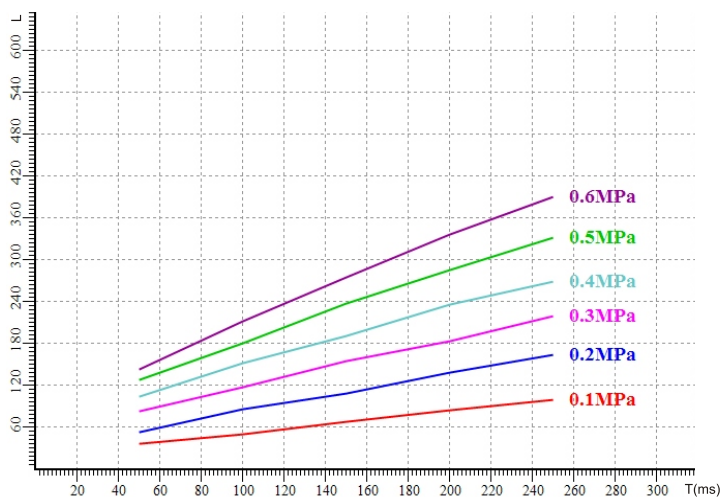


产品结构图 product structure diagram

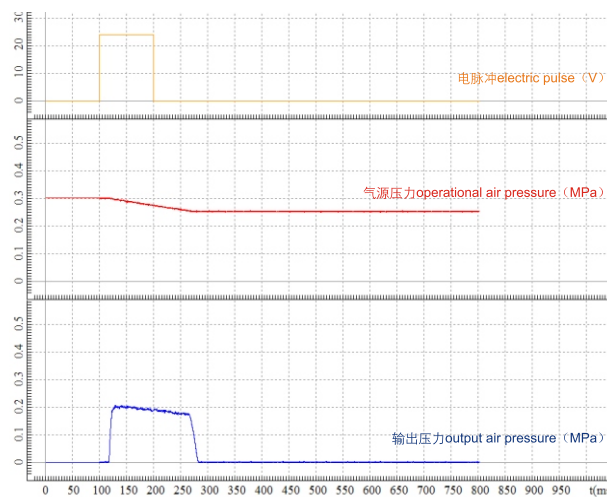
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	71
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	31
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	73
喷吹流量 blowing flow	L/Ms	0.69



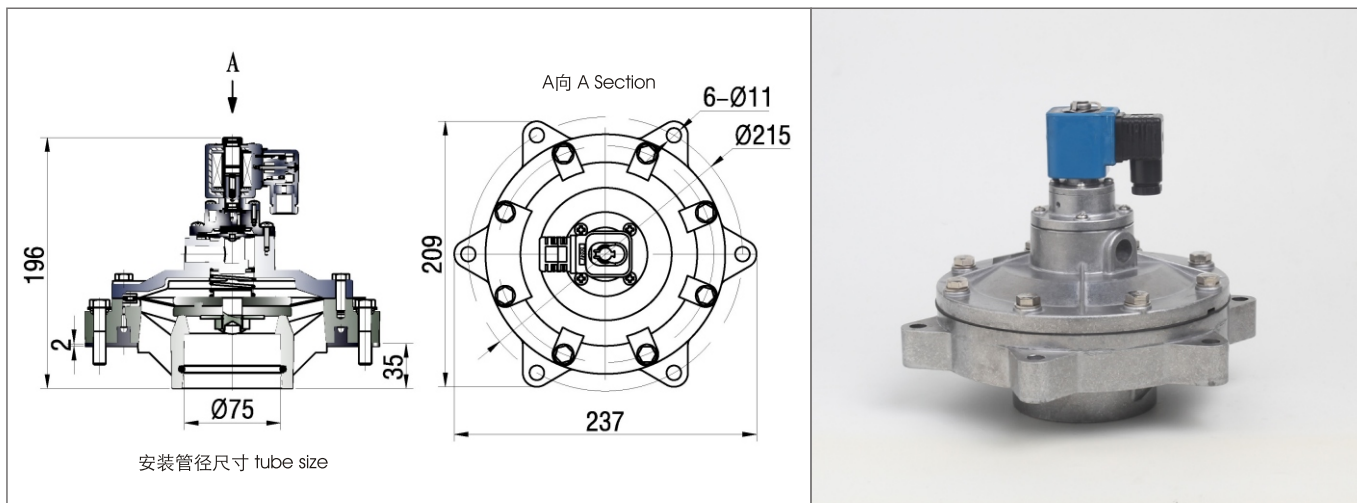
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

5.2 MAJ-Y-1型 62 (2 1/2")

产品编号 product's number : NO.4112104

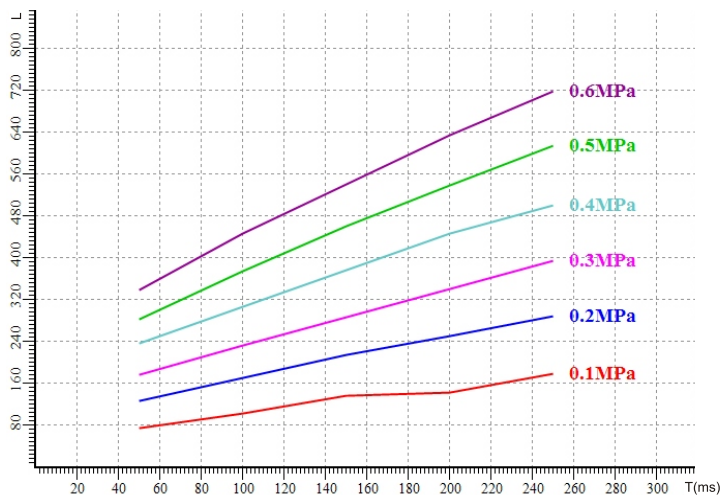


产品结构图 product structure diagram

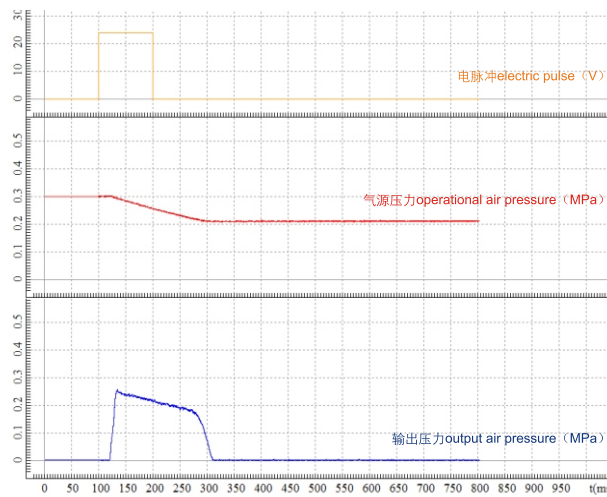
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	86
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	22
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	93
喷吹流量 blowing flow	L/Ms	1.23



喷吹气量曲线图 air flow curve

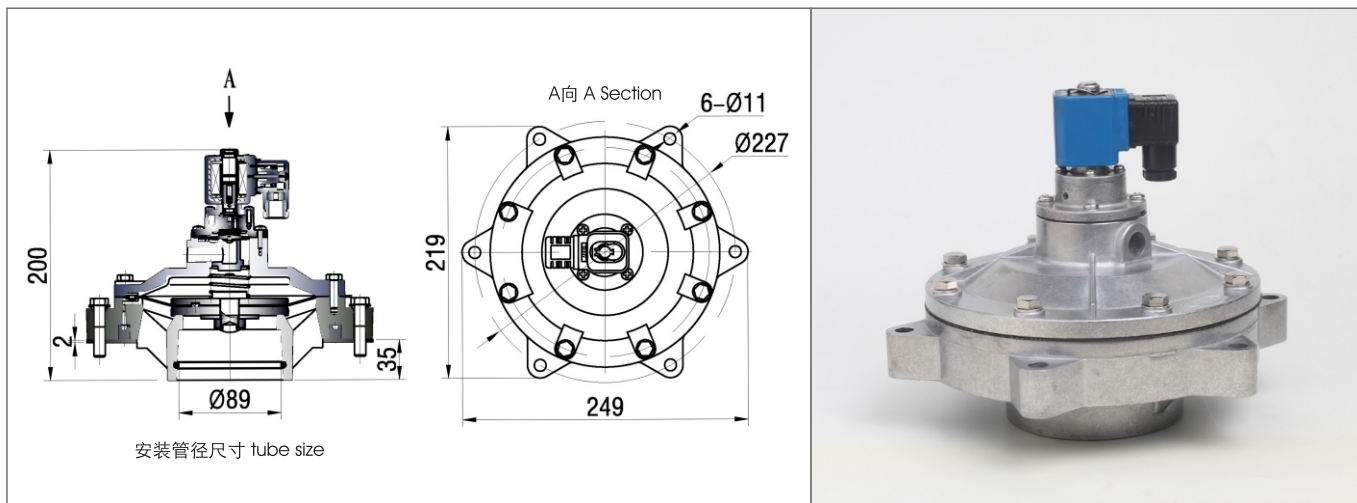


开关特性图 switch on/off character diagram



## 5.2 MAJ-Y-1型 76 (3")

产品编号 product's number : NO.4112105

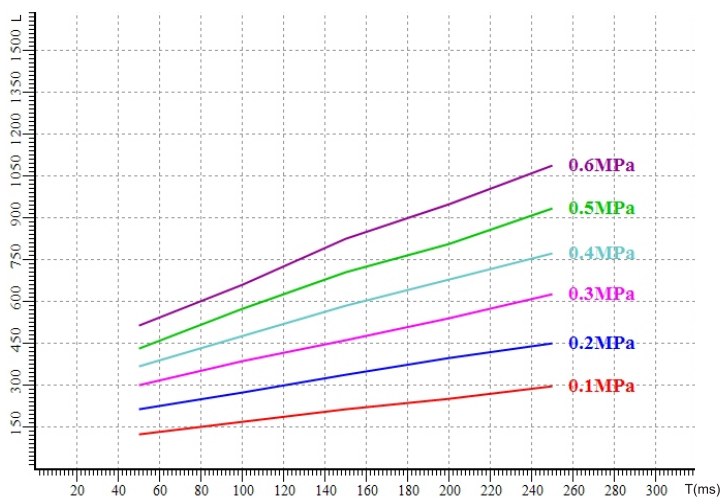


产品结构图 product structure diagram

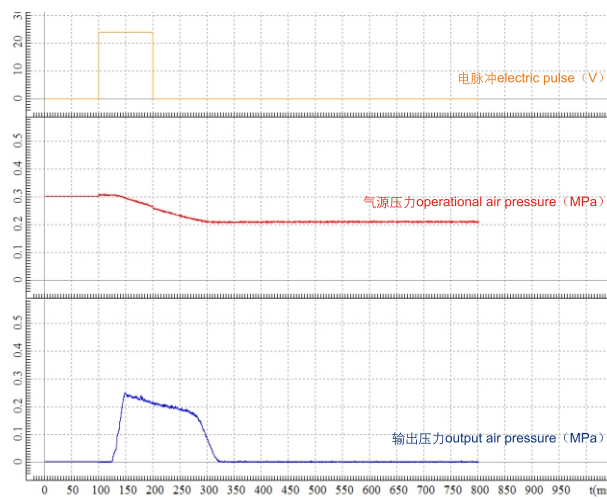
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	82
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	13
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	104
喷吹流量 blowing flow	L/Ms	1.79



喷吹气量曲线图 air flow curve

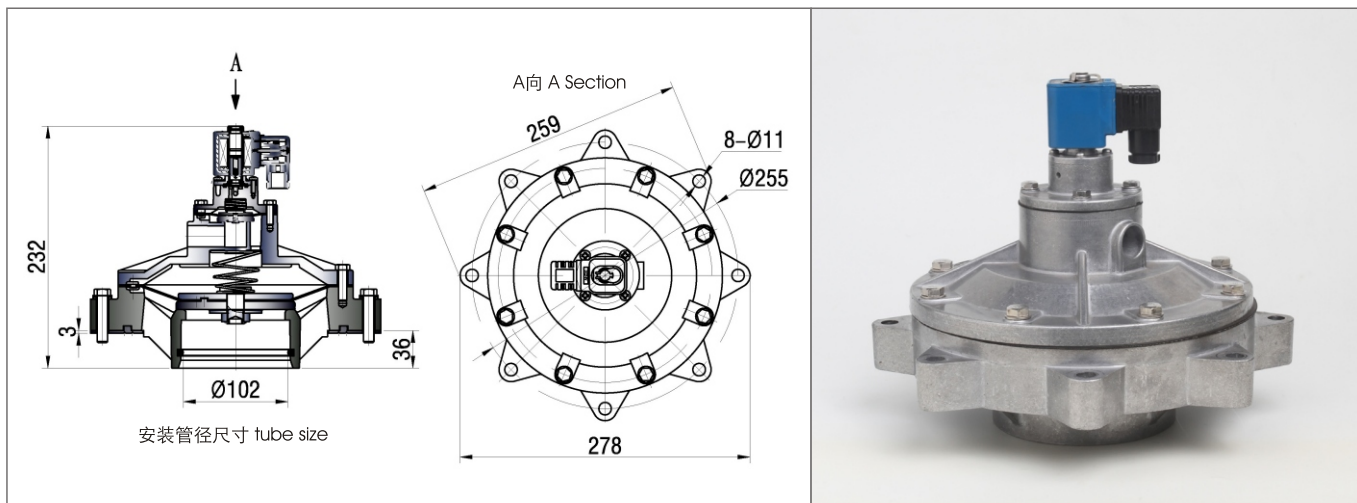


开关特性图 switch on/off character diagram



5.2 MAJ-Y-1型 89 (31/2")

产品编号 product's number : NO.4112106

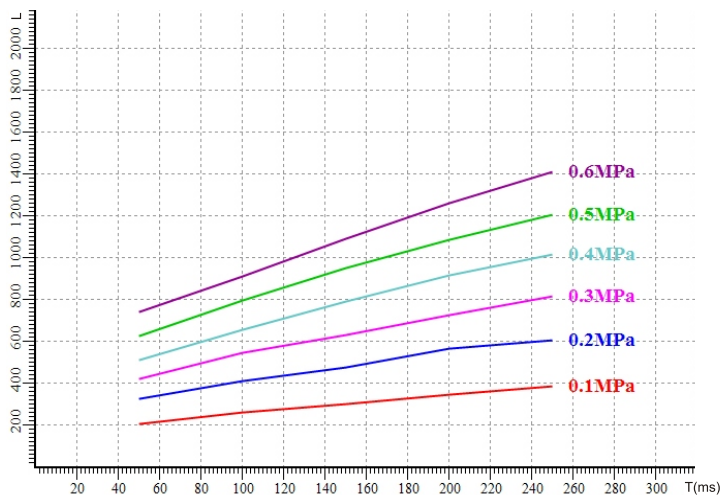


产品结构图 product structure diagram

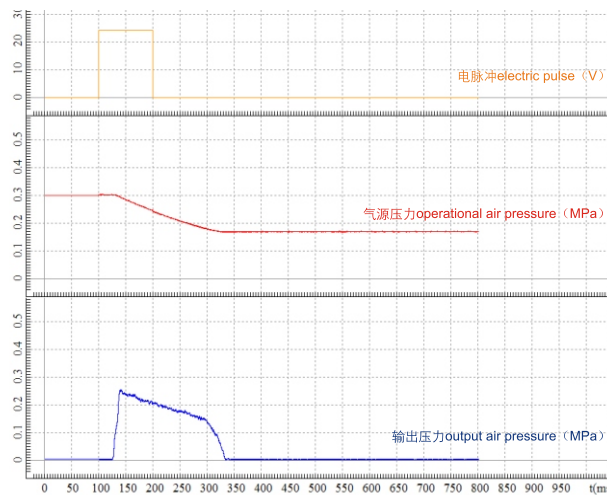
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	85
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	18
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	115
喷吹流量 blowing flow	L/Ms	2.42



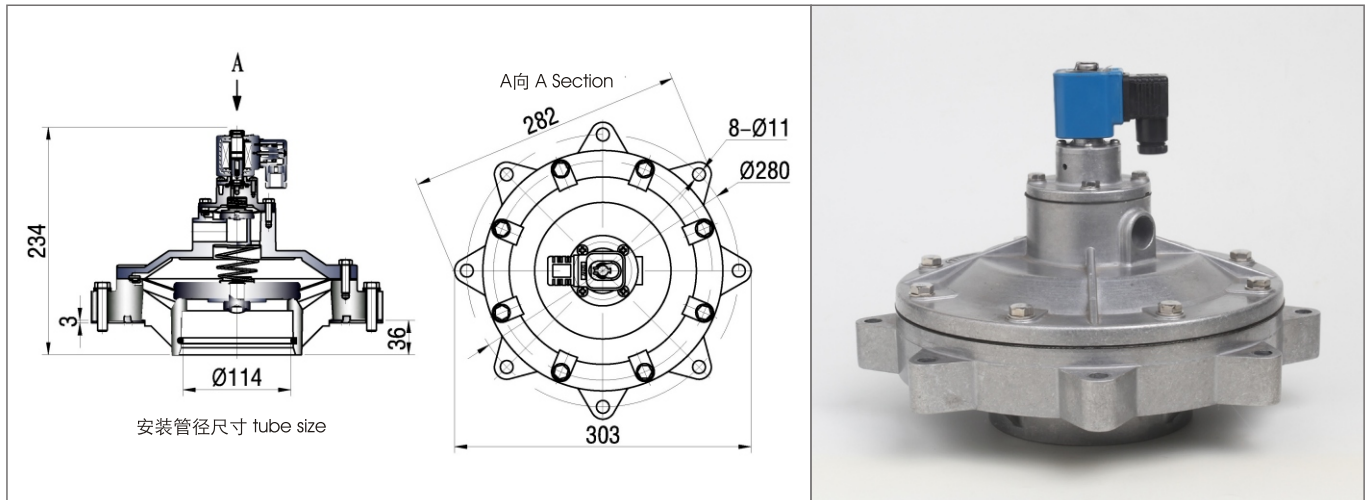
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 5.2 MAJ-Y-1型 102 (4")

产品编号 product's number : NO.4112107

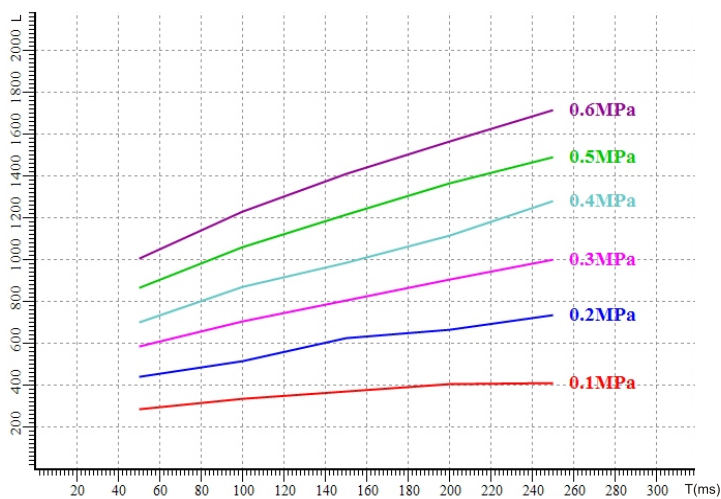


产品结构图 product structure diagram

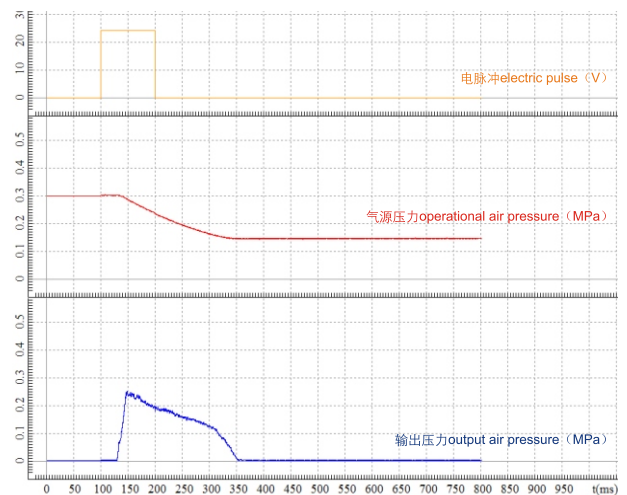
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	83
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	16
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	120
喷吹流量 blowing flow	L/Ms	2.76



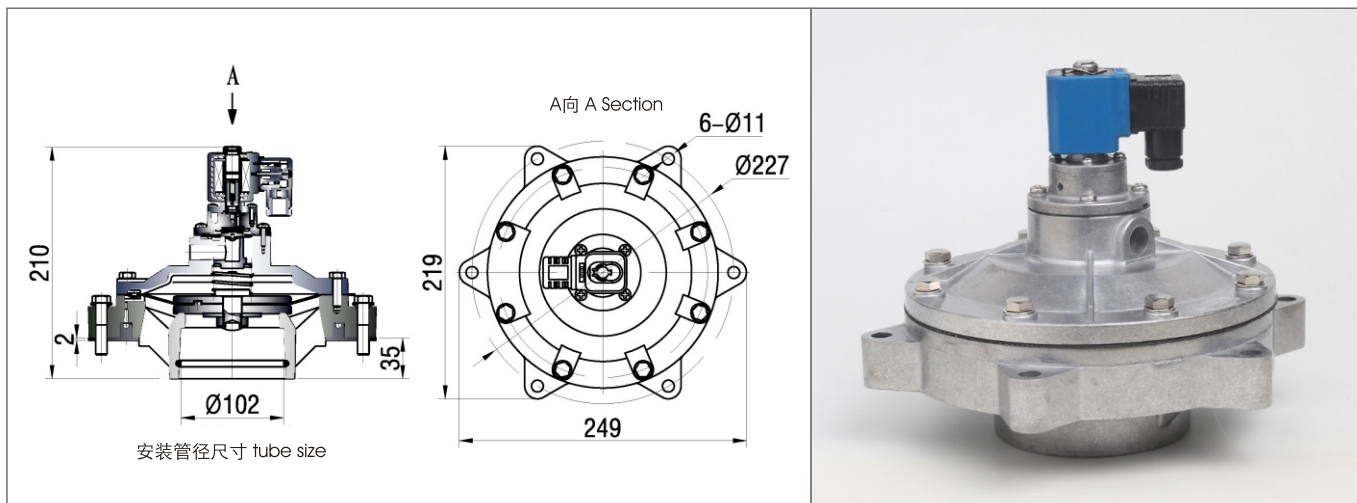
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 5.2 MAJ-Y-1型 102 (4”)W

产品编号 product's number : NO.4112108

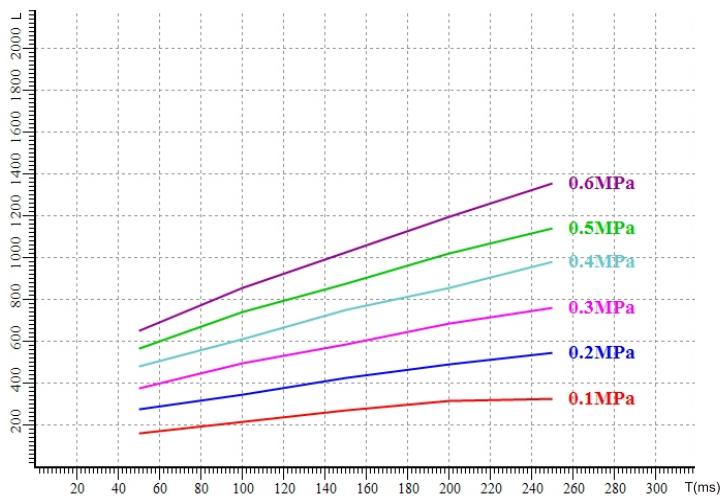


产品结构图 product structure diagram

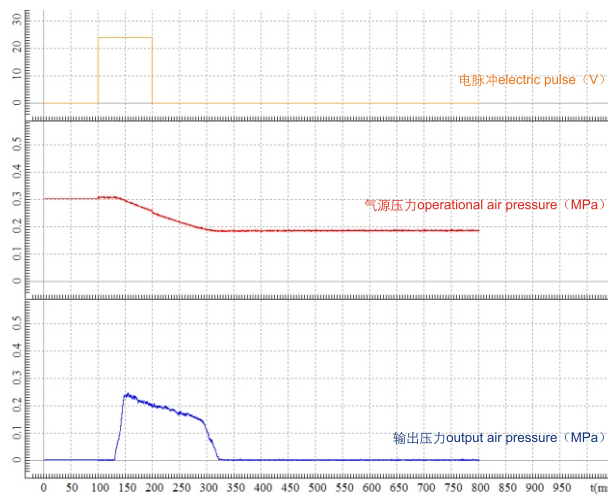
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	81
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	13
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	102
喷吹流量 blowing flow	L/Ms	2.41

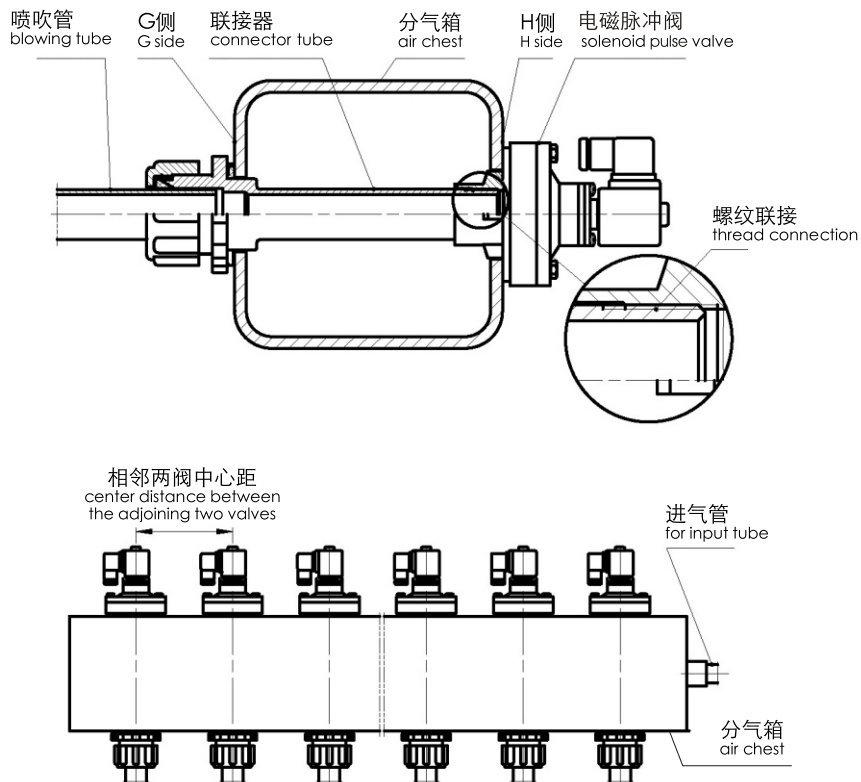


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

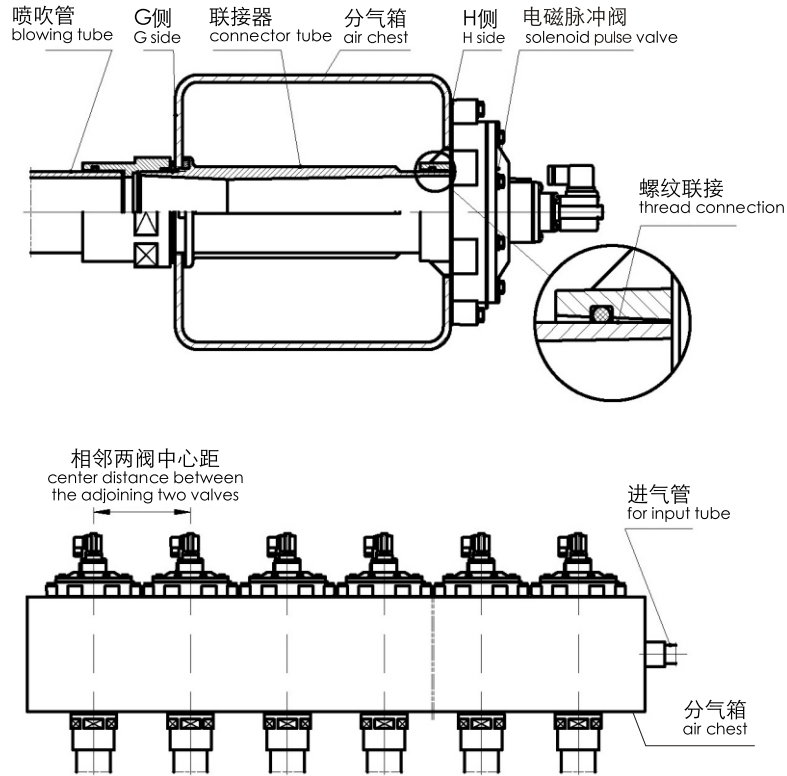
### 5.3 MAJ-Y-1型安装方法 (1) MAJ-Y-1 INSTALLATION(1)



单位unit: mm

规格 size	分气箱(方) air chest (square)				连接器 connector	喷吹管 blowing tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole			外径 external diameter	内径 internal diameter	插入长度 length to insert		
			H	G						
25 (1")	180×180	Φ20	Φ60	Φ50	FAP-B-1-25	Φ34	Φ25	48	螺纹 thread of screw	106
40 (1 1/2")	240×240	Φ25	Φ75	Φ62	FAP-B-1-40	Φ48	Φ40	52	螺纹 thread of screw	122

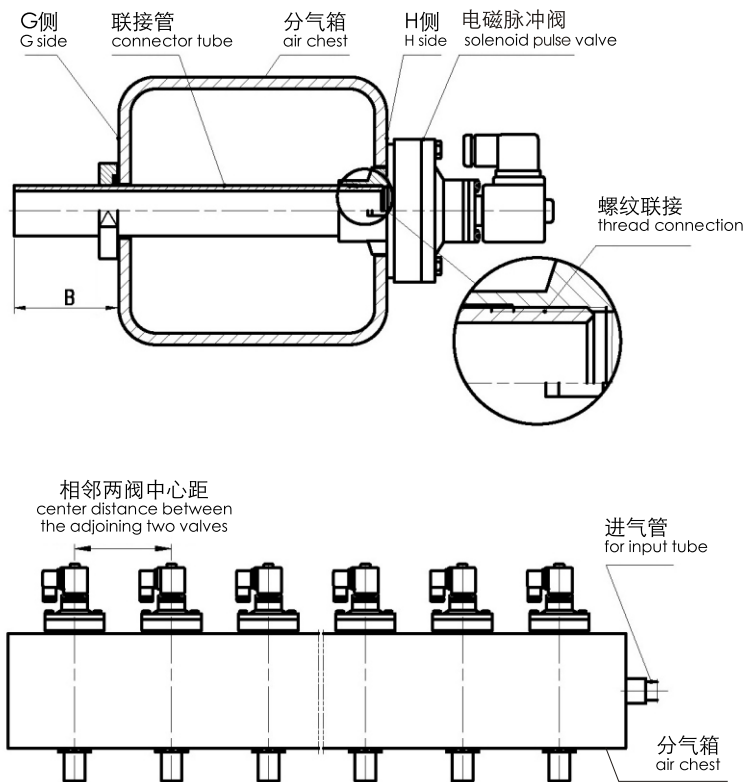
### 5.3 MAJ-Y-1型安装方法 (2) MAJ-Y-1 INSTALLATION(2)



单位unit: mm

规格 size	分气箱(方) air chest (square)				联接器 connector	喷吹管 blowing tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole			外径 external diameter	内径 internal diameter	插入长度 length to insert		
			H	G						
50 (2")	240×240	Φ40	Φ124	Φ61	FAP-B-1-50	Φ60	Φ50	40	滑动 sliding	178
62 (2 1/2")	300×300	Φ50	Φ150	Φ77	FAP-B-1-62	Φ76	Φ62	40	滑动 sliding	210
76(3")	300×300	Φ62	Φ164	Φ90	FAP-B-1-76	Φ89	Φ76	40	滑动 sliding	220
89(3 1/2")	350×350	Φ76	Φ178	Φ103	FAP-B-1-89	Φ102	Φ89	40	滑动 sliding	260
102(4")	400×400	Φ76	Φ194	Φ115	FAP-B-1-102	Φ114	Φ102	40	滑动 sliding	283
102(4") (w)	300×300	Φ76	Φ164	Φ103	FAP-B-1-89	Φ102	Φ89	40	滑动 sliding	220

### 5.3 MAJ-Y-1型安装方法 (3) MAJ-Y-1 INSTALLATION(3)

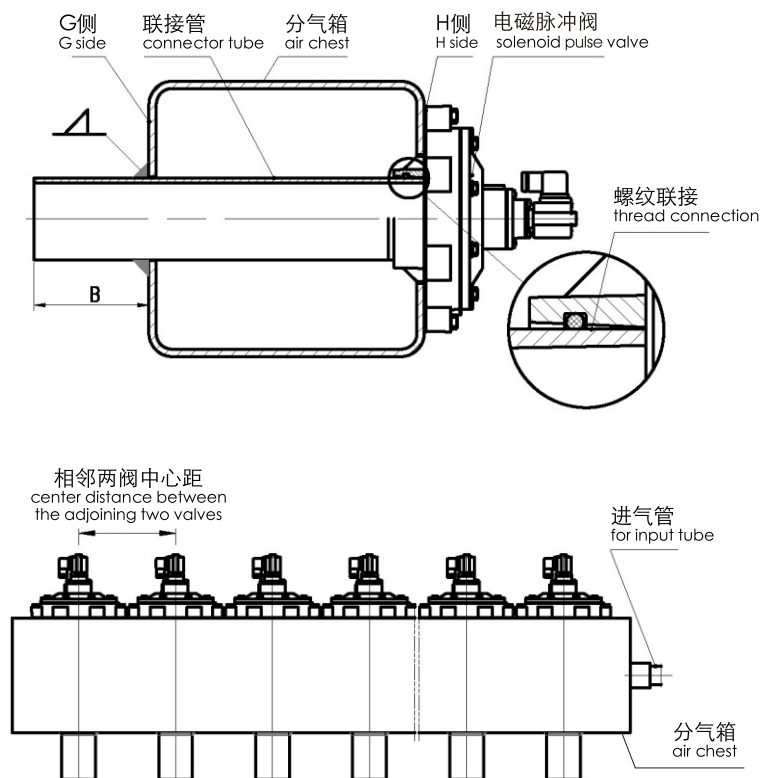


单位unit: mm

规格 size	分气箱(方) air chest (square)				联接管 connector tube					喷吹管 内径 blowing tube internal diameter	连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		外径 external diameter	内径 internal diameter	螺纹 thread of screw	法兰 flange	长度 length			
			H	G								
25 (1")	180×180	Φ20	Φ60	Φ35	Φ34	Φ25	G1"	65	178+B	Φ25	螺纹 thread of screw	106
40 (1 1/2")	240×240	Φ25	Φ75	Φ49	Φ48	Φ40	G1 1/2"	80	238+B	Φ40	螺纹 thread of screw	122



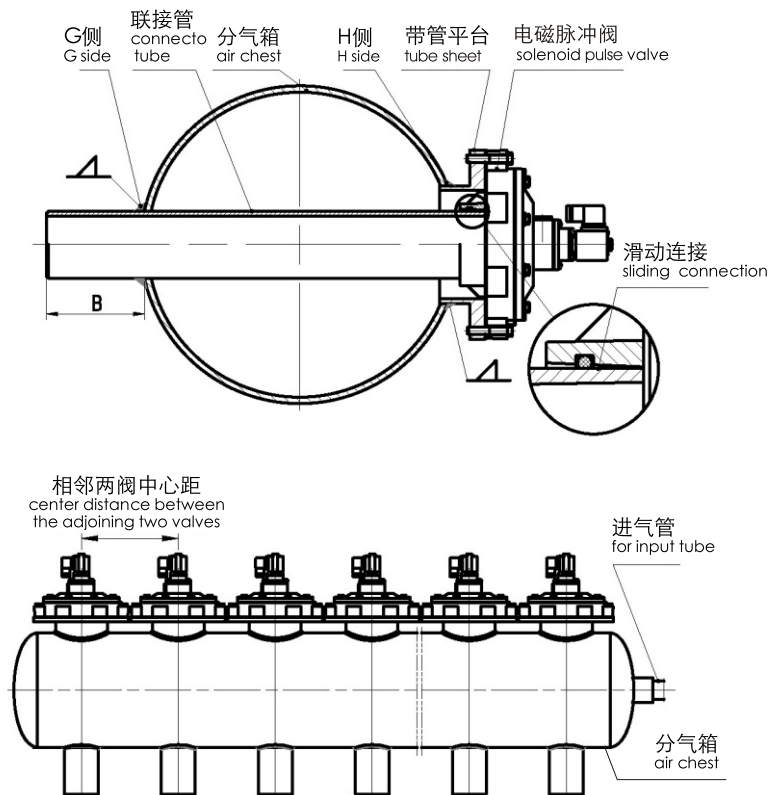
### 5.3 MAJ-Y-1型安装方法 (4) MAJ-Y-1 INSTALLATION(4)



单位unit: mm

规格 size	分气箱(方) air chest (square)				联接管 connector tube			喷吹管 内径 blowing tube internal diameter	连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		外径 external diameter	内径 internal diameter	长度 length			
			H	G						
50 (2")	240×240	Φ40	Φ124	Φ61	Φ60	Φ50	240+B	Φ50	滑动 sliding	178
62 (2 1/2")	300×300	Φ50	Φ150	Φ77	Φ76	Φ62	300+B	Φ62	滑动 sliding	210
76(3")	300×300	Φ50	Φ164	Φ90	Φ89	Φ76	300+B	Φ76	滑动 sliding	220
89(3 1/2")	350×350	Φ50	Φ178	Φ103	Φ102	Φ89	350+B	Φ89	滑动 sliding	260
102(4")	400×400	Φ50	Φ194	Φ115	Φ114	Φ102	400+B	Φ102	滑动 sliding	283
102(4") (w)	300×300	Φ50	Φ164	Φ103	Φ102	Φ89	300+B	Φ89	滑动 sliding	220

### 5.3 MAJ-Y-1型安装方法 (5) MAJ-Y-1 INSTALLATION(5)

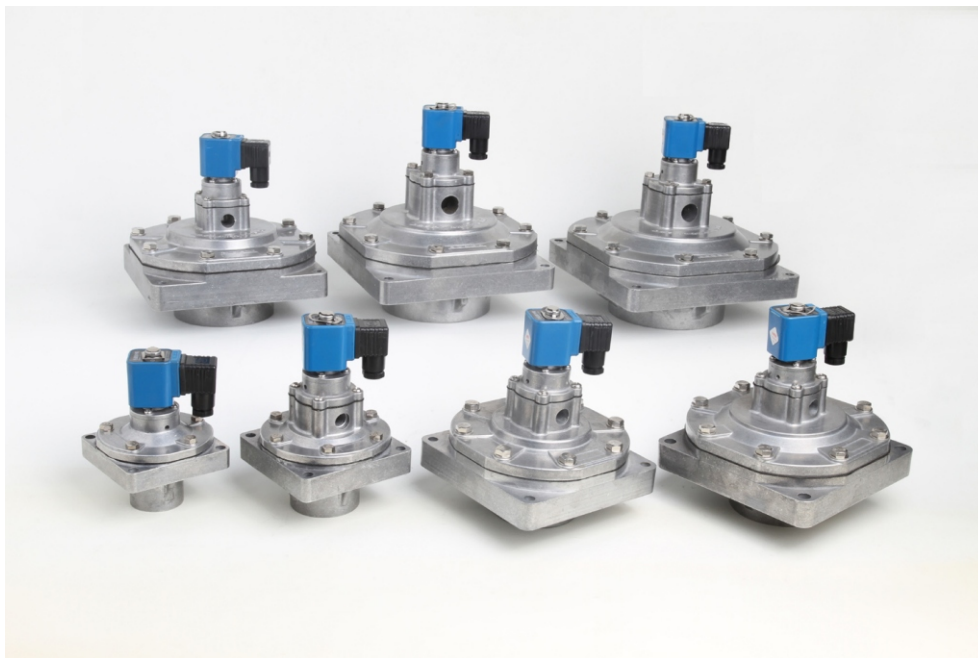


单位unit: mm

规格 size	分气箱(方) air chest (square)				带管平台 tube sheet		联接管 connector tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		内径 internal diameter	法兰 flange	外径 external diameter	内径 internal diameter	长度 length		
			H	G							
50 (2")	Φ219	Φ40	Φ134	Φ62	Φ124	Φ202	Φ60	Φ50	281+B	滑动 sliding	178
62 (2 1/2")	Φ273	Φ50	Φ159	Φ77	Φ150	Φ237	Φ76	Φ62	335+B	滑动 sliding	210
76 (3")	Φ325	Φ62	Φ173	Φ91	Φ164	Φ249	Φ89	Φ76	387+B	滑动 sliding	220
89 (3 1/2")	Φ351	Φ76	Φ187	Φ104	Φ178	Φ278	Φ102	Φ89	413+B	滑动 sliding	260
102 (4")	Φ402	Φ76	Φ204	Φ116	Φ194	Φ303	Φ114	Φ102	464+B	滑动 sliding	283
102 (4") (w)	Φ325	Φ76	Φ173	Φ104	Φ164	Φ249	Φ102	Φ89	387+B	滑动 sliding	220

## 6. DMF-MAJ-Y-2型 DMF-MAJ-Y-2 TYPE

产品编号 product's number : NO.4112200

DMF-MAJ-Y-2系列产品照片  
DMF-MAJ-Y-2 series products' photograph

DMF-MAJ-Y-2型电磁脉冲阀采用橡胶膜片作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-MAJ-Y-2 electromagnetic valve employs the rubber diaphragm as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

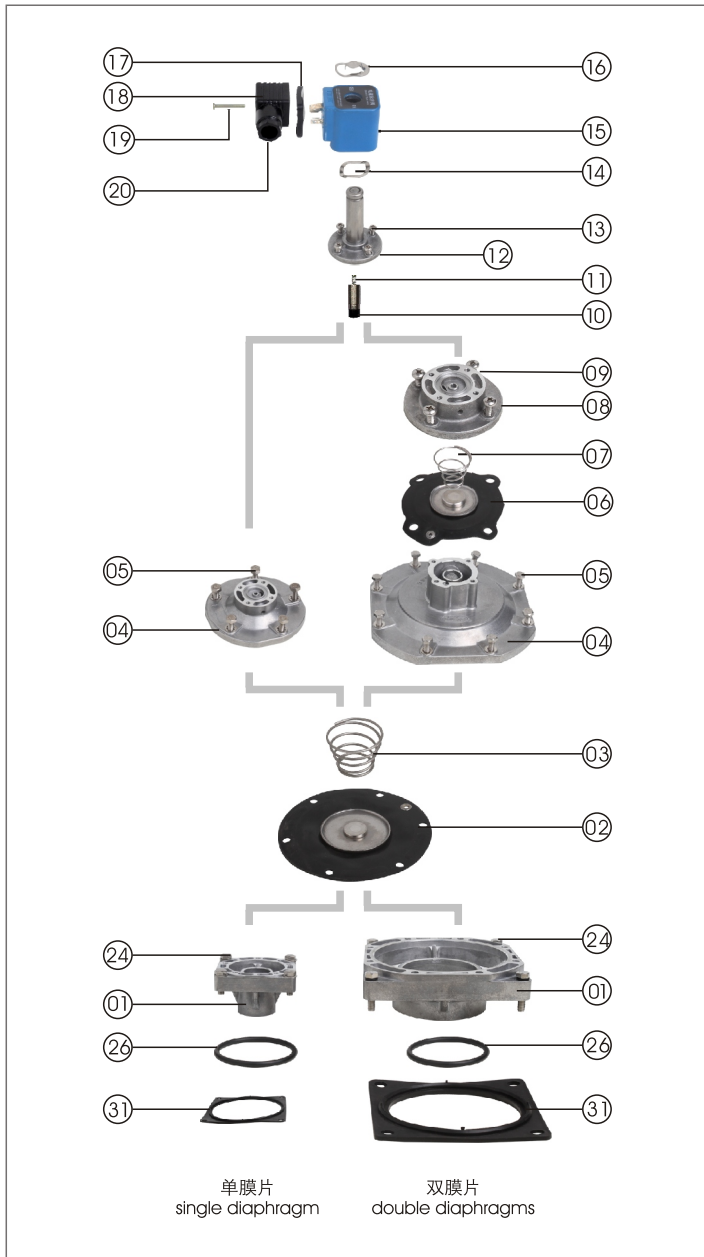
本系列脉冲阀直接安装在分气箱（气包）上，称为淹没式阀（也称嵌入式阀，低压阀）。将阀体设计成正方形，其四角安装孔用螺栓与分气箱固定，输出口通过连接管延伸至分气箱外与除尘器喷吹管相连接。具有流通特性好，压力损失小，能在气源压力较低场合提供理想的清灰振动气流，适用于各种过滤单元的清灰，并缩小了相邻两个阀体之间的最小安装中心距离。满足大型袋式除尘器配置大口径脉冲阀，又不增加阀体安装面积的要求。

Valve of this series are directly installed on the air chest (air bag) which is called immersion valve (also called as injection valve or low pressure valve). The valve is designed in square shape whose mounting holes on the four corners could be used to fix with air chests through bolts. During the installation, one could connect the air blowing tube with the output port extension tube outside the air chest. The character of the valve is good flow, low pressure loss and could provide satisfactory cleaning vibrating flow in the low pressure environments. The valve is applicable for various kinds of filter equipments. The design of the valve decreases the minimum installation space between two valves. The compact spacing makes it possible for large bag dust collector to equip with large caliber pulse valve without compromising the installation space.

本系列电磁脉冲阀有：25mm(1")、40mm(1 1/2")、50mm(2")、62mm(2 1/2")、76mm(3")、89mm(3 1/2")、102mm(4") 7种规格。其中25mm(1")为单膜片阀，40mm(1 1/2")~102mm(4")为双膜片阀。连接管与脉冲阀输出口为插入式滑动连接。

Electromagnetic pulse valves of this series are classified as seven categories below: 25mm(1"), 40mm(1 1/2"), 50mm(2"), 62mm(2 1/2"), 76mm(3"), 89mm(3 1/2"), 102mm(4"). Among which 25mm(1") is single diaphragm valve and 40mm(1 1/2") ~ 102mm(4") are double diaphragms valve. The connection between pulse valve output tube and connection tube are accomplished in inserting slide connection.

6.1 MAJ-Y-2型分解图及明细表 MAJ-Y-2 SEPARATE DIAGRAM AND INDEX LIST



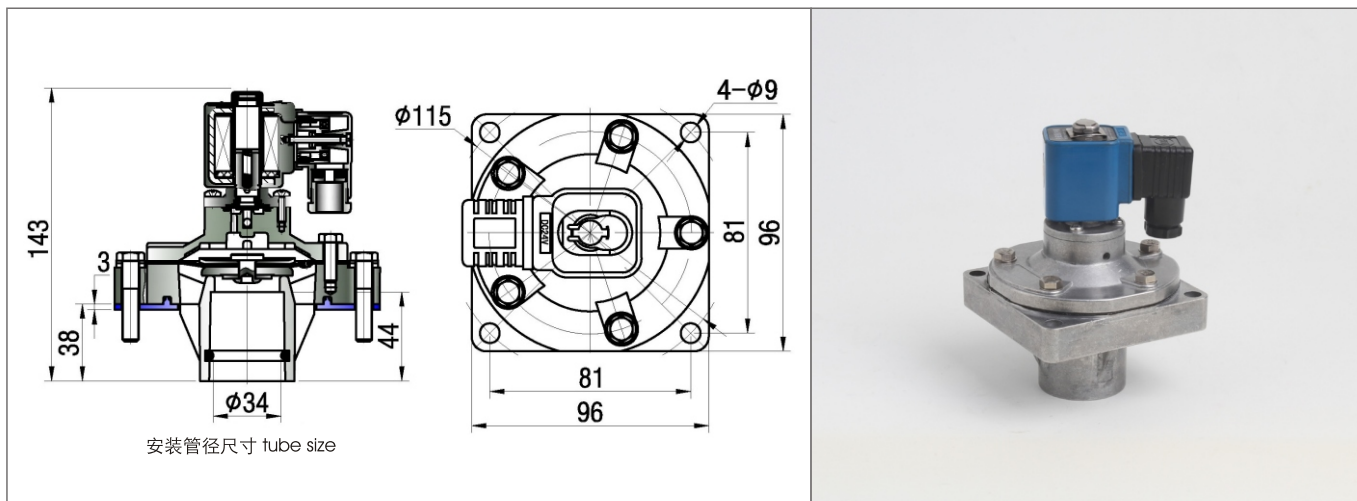
DMF-MAJ-Y-2电磁脉冲阀分解图  
DMF-MAJ-Y-2 separate diagram of valve

明细表 illustrative list

序号 Number	零件名称 components name	配置 disposition	
		单膜片 single diaphragm	双膜片 double diaphragms
01	阀体 valve body	1	1
02	膜片 (主) diaphragm (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	5	6-8
06	膜片 (副) diaphragm (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1
21-23	-----		
24	螺栓 bolt	4	4
25	-----		
26	O型密封圈 O sealing washer	1	1
27-30	-----		
31	密封圈 sealing washer	1	1

## 6.2 MAJ-Y-2型 25 (1")

产品编号 product's number : NO.4112201

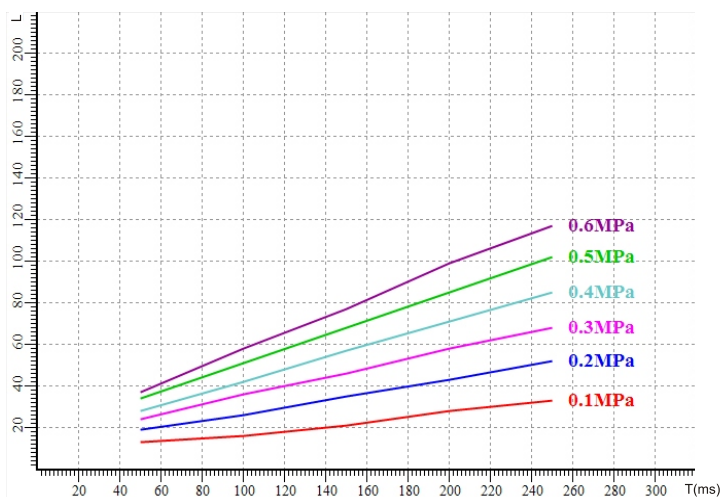


产品结构图 product structure diagram

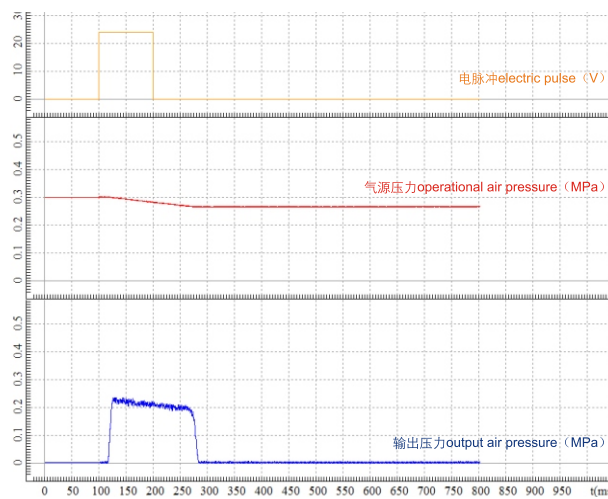
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	80
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	30
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	65
喷吹流量 blowing flow	L/Ms	0.21



喷吹气量曲线图 air flow curve

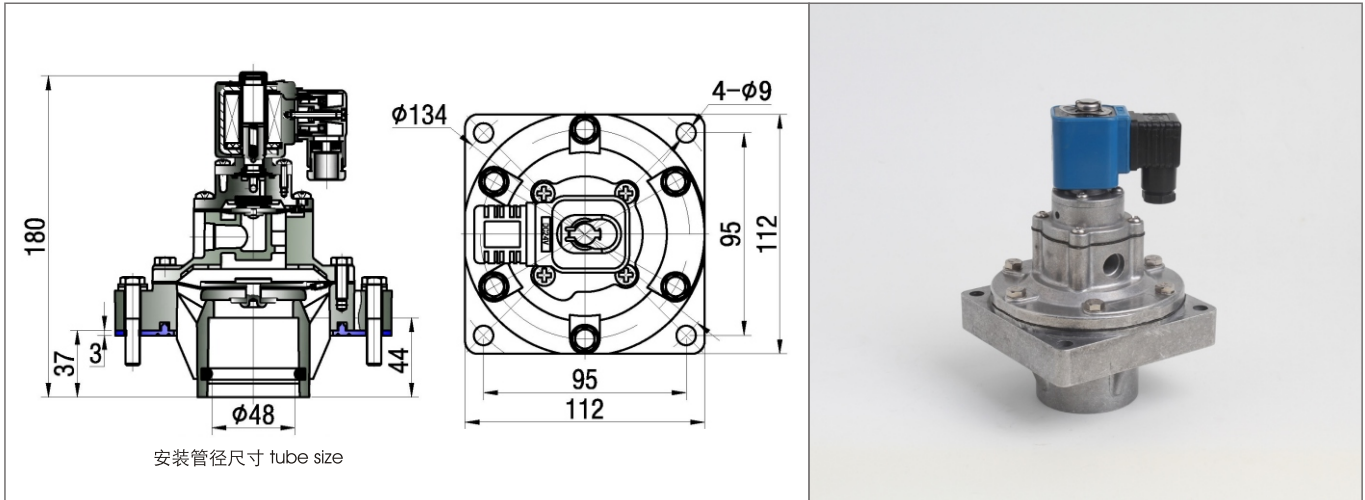


开关特性图 switch on/off character diagram



## 6.2 MAJ-Y-2型 40 (1 1/2")

产品编号 product's number : NO.4112202

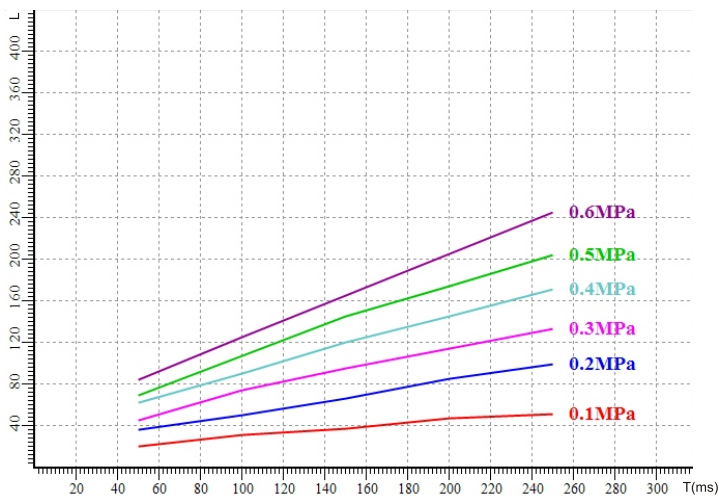


产品结构图 product structure diagram

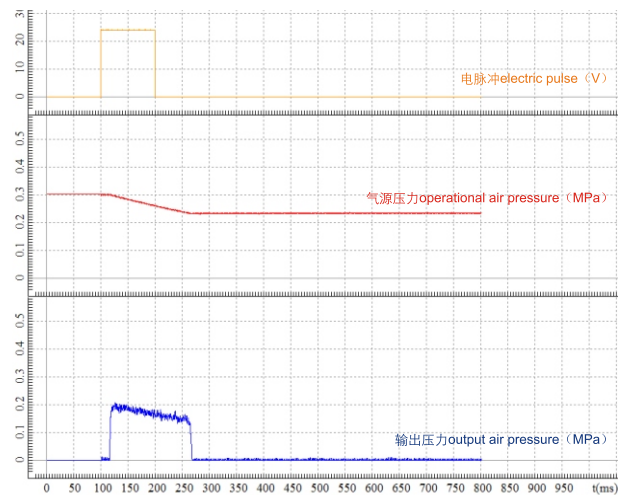
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	71
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	46
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	53
喷吹流量 blowing flow	L/Ms	0.48



喷吹气量曲线图 air flow curve

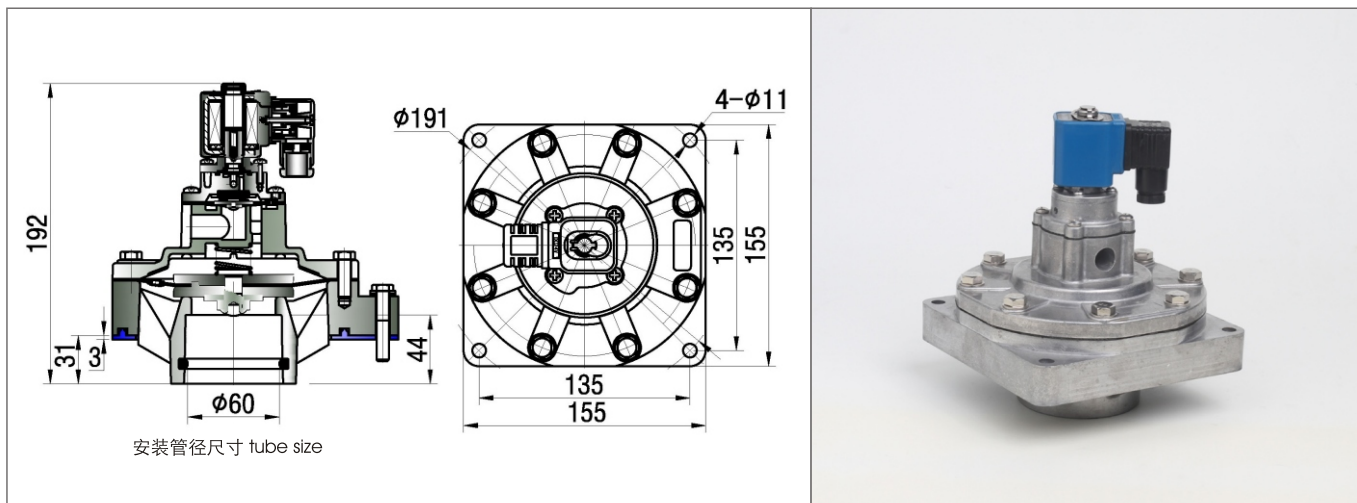


开关特性图 switch on/off character diagram



## 6.2 MAJ-Y-2型 50 (2")

产品编号 product's number : NO.4112203

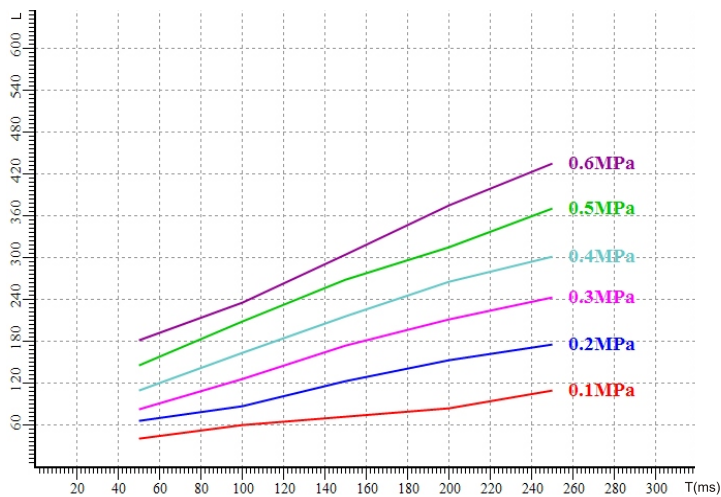


产品结构图 product structure diagram

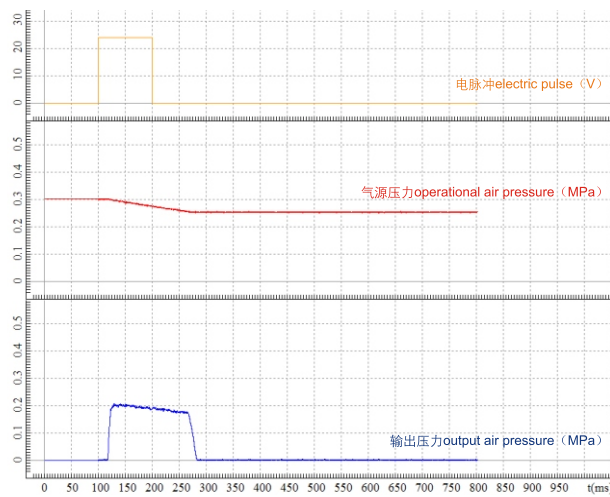
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	86
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	38
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	66
喷吹流量 blowing flow	L/Ms	0.75



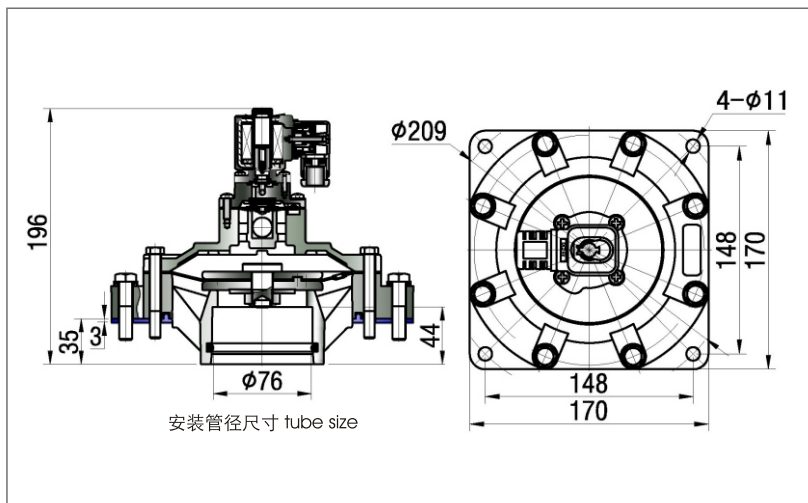
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

6.2 MAJ-Y-2型 62 (2 1/2")

产品编号 product's number : NO.4112204

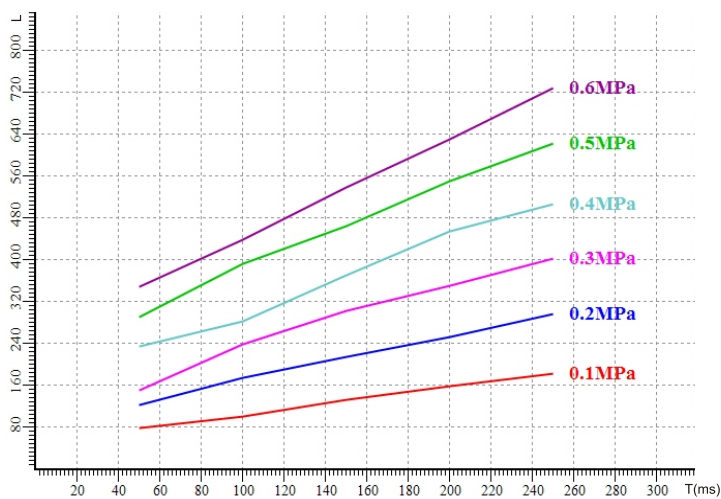


产品结构图 product structure diagram

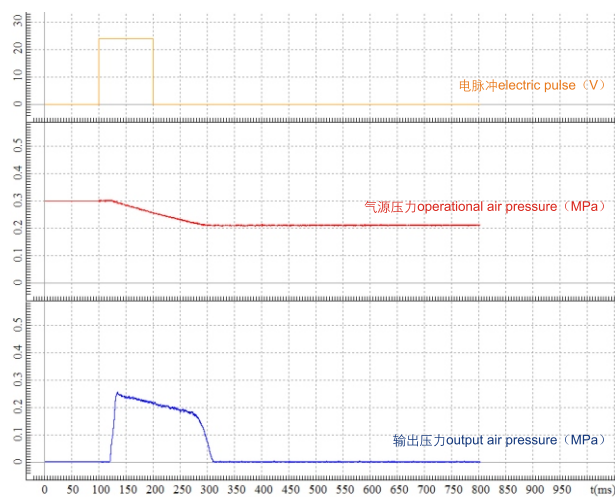
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	90
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	25
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	81
喷吹流量 blowing flow	L/Ms	1.30



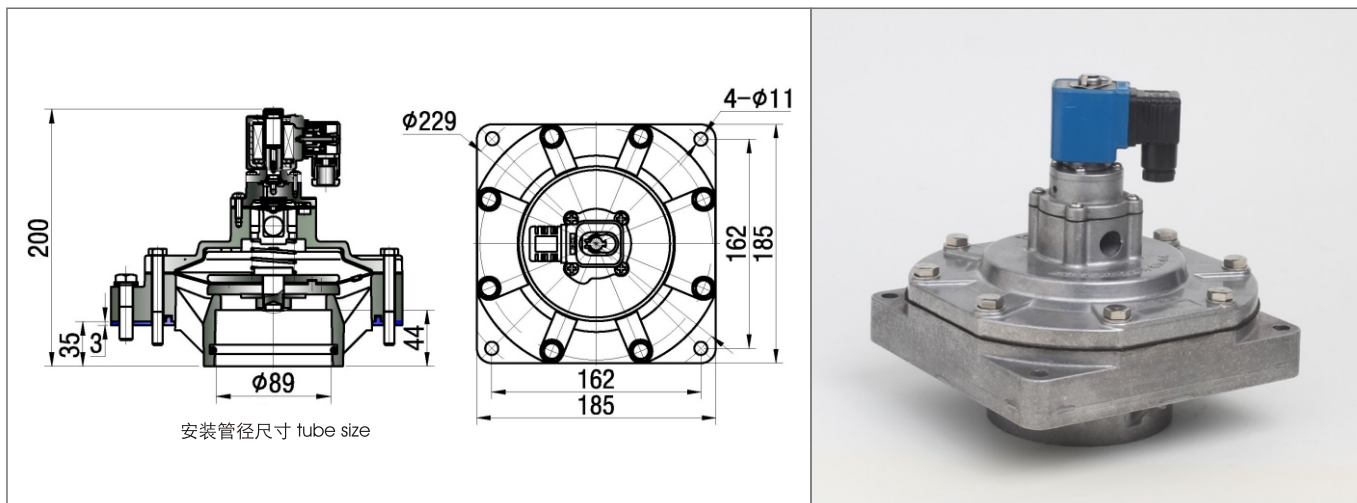
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 6.2 MAJ-Y-2型 76 (3")

产品编号 product's number : NO.4112205

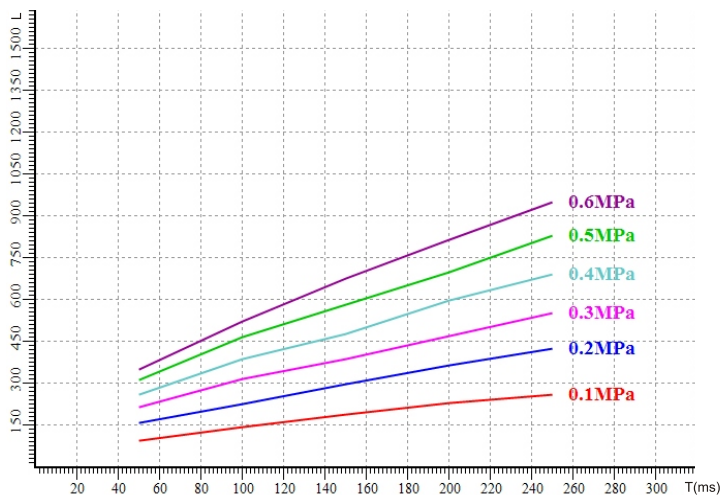


产品结构图 product structure diagram

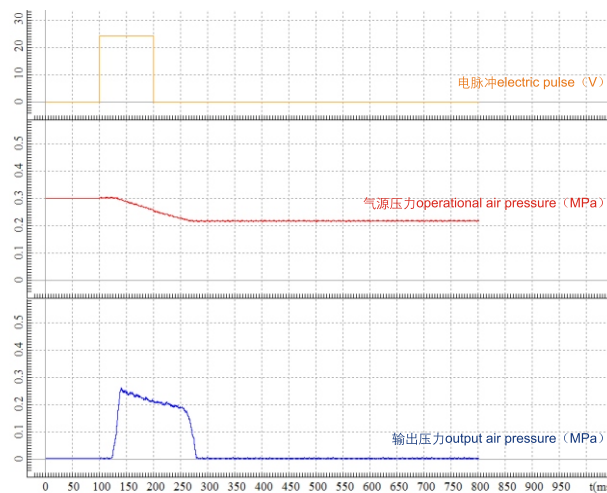
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	85
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	16
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	59
喷吹流量 blowing flow	L/Ms	1.97



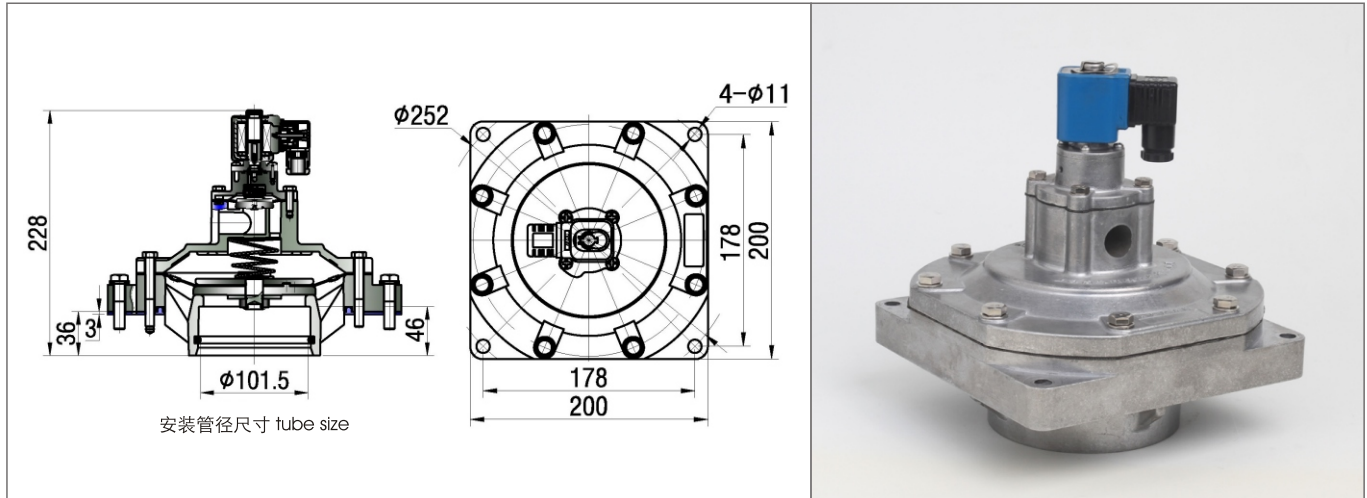
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 6.2 MAJ-Y-2型 89 (3 1/2")

产品编号 product's number : NO.4112206

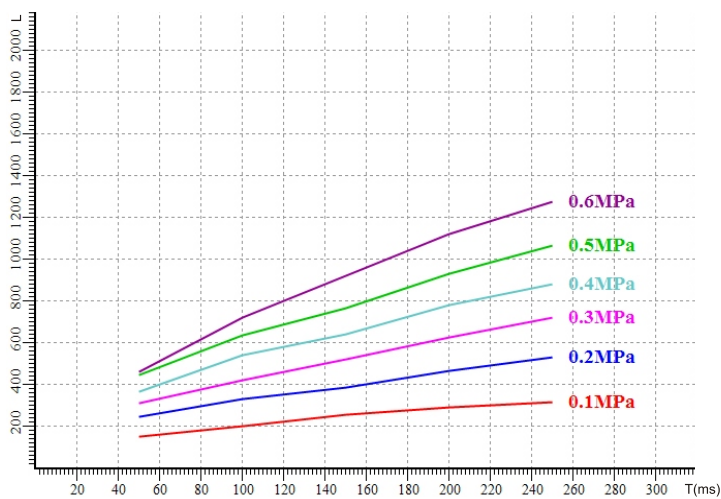


产品结构图 product structure diagram

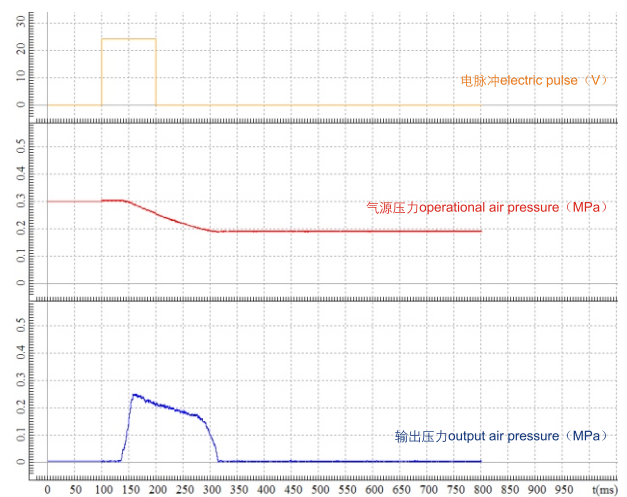
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	85
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	14
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	80
喷吹流量 blowing flow	L/Ms	2.45



喷吹气量曲线图 air flow curve

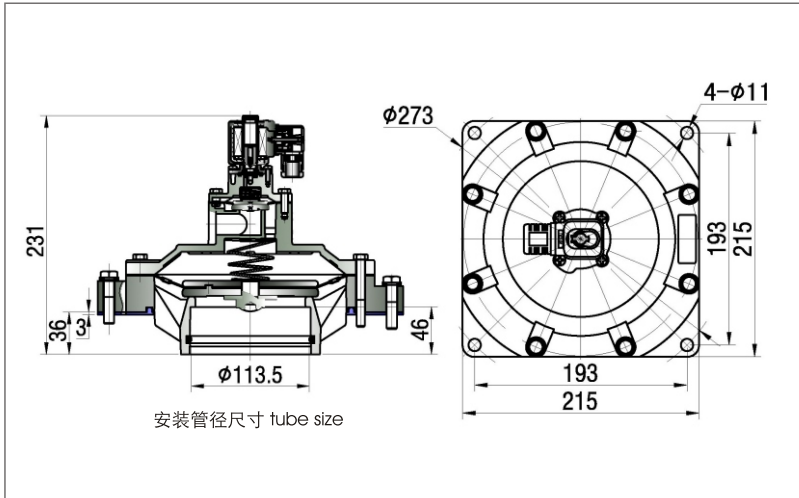


开关特性图 switch on/off character diagram



## 6.2 MAJ-Y-2型 102 (4")

产品编号 product's number : NO.4112207

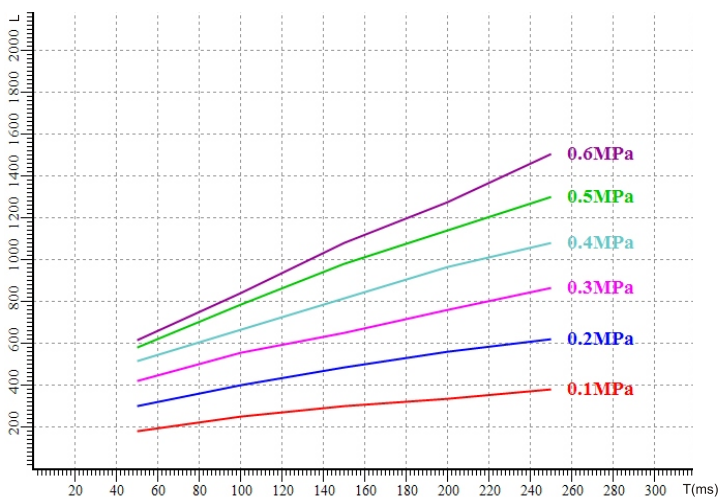


产品结构图 product structure diagram

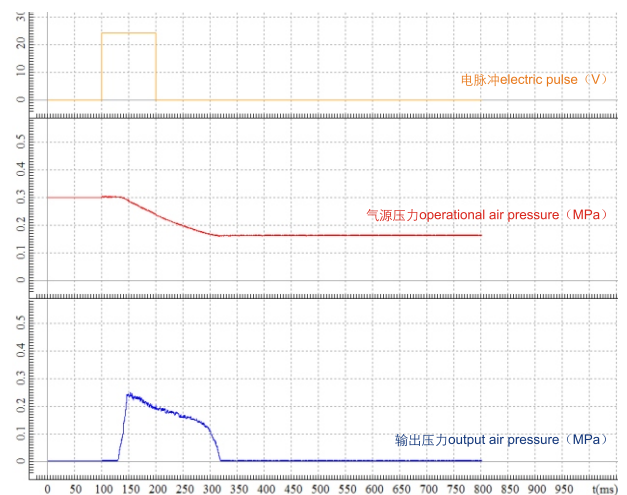
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	83
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	15
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	89
喷吹流量 blowing flow	L/Ms	2.96

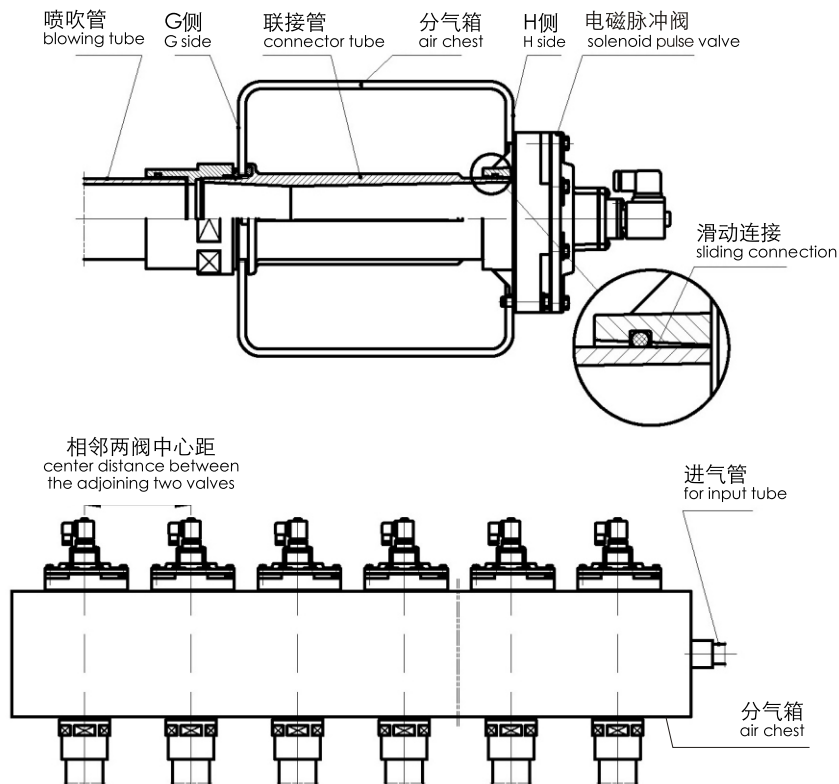


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

### 6.3 MAJ-Y-2型安装方法 (1) MAJ-Y-2 INSTALLATION(1)

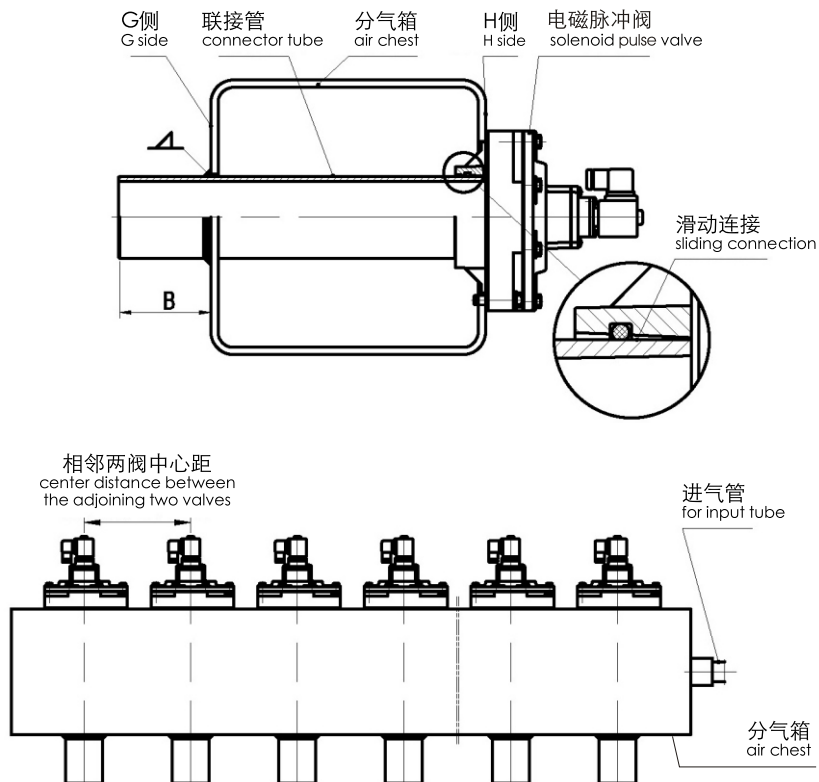


单位unit: mm

规格 size	分气箱(方) air chest (square)			输出联接器 output bulkhead connector	喷吹管 blowing tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves	
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		外径 external diameter	内径 internal diameter	插入长度 length to insert			
			H	G						
25 (1")	180×180	Φ20	Φ68	Φ35	FAP-B-2-25	Φ34	Φ25	35	滑动 sliding	106
40 (1 1/2")	240×240	Φ25	Φ87	Φ49	FAP-B-2-40	Φ48	Φ40	35	滑动 sliding	122
50 (2")	240×240	Φ40	Φ124	Φ62	FAP-B-2-50	Φ60	Φ50	40	滑动 sliding	165
62 (2 1/2")	300×300	Φ50	Φ144	Φ77	FAP-B-2-62	Φ76	Φ62	40	滑动 sliding	180
76(3")	300×300	Φ62	Φ164	Φ91	FAP-B-2-76	Φ89	Φ76	40	滑动 sliding	195
89(3 1/2")	350×350	Φ76	Φ172	Φ103	FAP-B-2-89	Φ102	Φ89	40	滑动 sliding	210
102(4")	400×400	Φ76	Φ187	Φ116	FAP-B-2-102	Φ114	Φ102	40	滑动 sliding	225



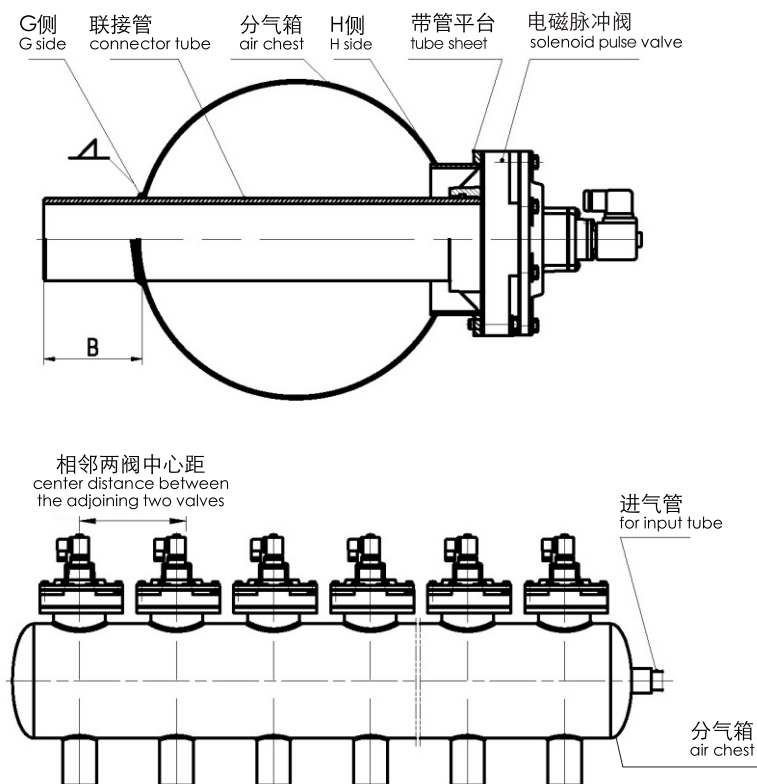
### 6.3 MAJ-Y-2型安装方法 (2) MAJ-Y-2 INSTALLATION(2)



单位unit: mm

规格 size	分气箱(方) air chest (square)				联接管 connector tube			喷吹管 内径 blowing tube internal diameter	连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		外径 external diameter	内径 internal diameter	长度 length			
			H	G						
25 (1")	180×180	Φ20	68	35	Φ34	Φ25	180+B	Φ25	滑动 sliding	106
40 (1 1/2")	240×240	Φ25	87	49	Φ48	Φ40	240+B	Φ40	滑动 sliding	122
50 (2")	240×240	Φ40	124	61	Φ60	Φ50	240+B	Φ50	滑动 sliding	165
62 (2 1/2")	300×300	Φ50	144	77	Φ76	Φ62	300+B	Φ62	滑动 sliding	180
76(3")	300×300	Φ62	164	90	Φ89	Φ76	300+B	Φ76	滑动 sliding	195
89(3 1/2")	350×350	Φ76	172	103	Φ102	Φ89	350+B	Φ89	滑动 sliding	210
102(4")	400×400	Φ76	187	115	Φ114	Φ102	400+B	Φ102	滑动 sliding	225

### 6.3 MAJ-Y-2型安装方法 (3) MAJ-Y-2 INSTALLATION(3)



单位unit: mm

规格 size	分气箱(方) air chest (square)				带管平台 tube sheet		联接管 connector tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		内径 internal diameter	法兰 flange	外径 external diameter	内径 internal diameter	长度 length		
			H	G							
25 (1")	Φ146	Φ20	78	35	68	96X96	34	25	208+B	滑动 sliding	106
40 (1 1/2")	Φ168	Φ25	97	49	87	112X112	48	40	230+B	滑动 sliding	122
50 (2")	Φ219	Φ40	134	61	124	155X155	60	50	281+B	滑动 sliding	165
62 (2 1/2")	Φ273	Φ50	154	77	144	170X170	76	62	335+B	滑动 sliding	180
76(3")	Φ325	Φ62	174	90	164	185X185	89	76	387+B	滑动 sliding	195
89(3 1/2")	Φ351	Φ76	182	103	172	200X200	102	89	413+B	滑动 sliding	210
102(4")	Φ402	Φ76	197	115	187	215X215	114	102	464+B	滑动 sliding	225

## 7. DMF-MAJ-T-1型 DMF-MAJ-T-1 TYPE

产品编号 product's number : NO.4113100

DMF-MAJ-T-1系列产品照片  
DMF-MAJ-T-1 series products' photograph

DMF-MAJ-T-1型电磁脉冲阀采用橡胶膜片作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-MAJ-T-1 electromagnetic valve employs the rubber diaphragm as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

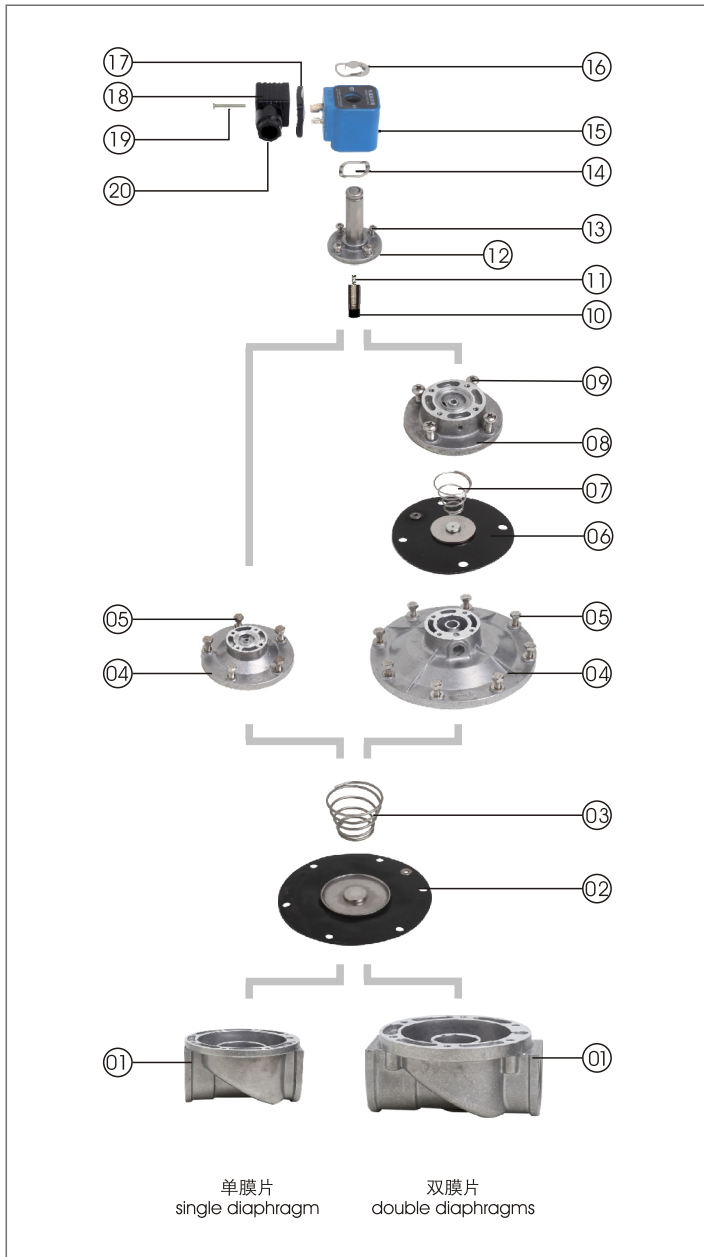
本系列脉冲阀的输入口与输出口夹角为180°（输入、输出口中心线为同一直线），称为直通阀。其输入、输出接口为内螺纹，分别与分气箱（气包）上的短管和喷吹管螺纹连接，能提供清灰振动气流。适用于各种过滤单元的清灰。

The angle between the input and output ports of pulse valves within this series is 180° (the middle lines of input and output ports are in one straight line) which could be called as direct pass valve. It's input and output interface are designed to have internal threads connecting the short tube on the air chest (air bag) and the injection pipe thread respectively. The valve is easy to install which is applicable for various kinds of filter equipments by providing satisfactory cleaning vibrating flow.

本系列电磁脉冲阀有：20mm(3/4")、25mm(1")、40mm(1 1/2")、50mm(2")、62mm(2 1/2")五种规格。其中：20mm(3/4")为单膜片阀，25mm(1")~62mm(2 1/2")为双膜片阀。

Electromagnetic pulse valves of this series are classified as five categories below:: 20mm (3/4"), 25mm(1"), 40mm(1 1/2"), 50mm(2"), 62mm(2 1/2"). Among which 20mm (3/4") is single diaphragm valve and 25mm (1") ~ 62mm (2 1/2") are double diaphragms valve.

7.1 MAJ-T-1型分解图及明细表 MAJ-T-1 SEPARATE DIAGRAM AND INDEX LIST



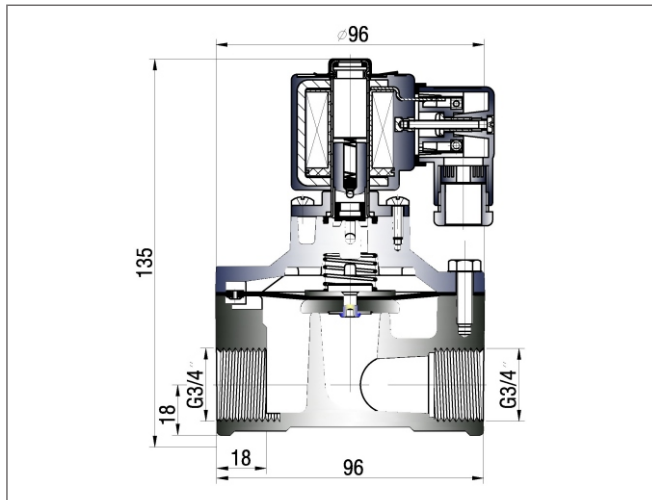
明细表 illustrative list

序号 Number	零件名称 components name	配置 Dispositions	
		单膜片 single diaphragm	双膜片 double diaphragms
01	阀体 valve body	1	1
02	膜片 (主) diaphragm (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	5	6-8
06	膜片 (副) diaphragm (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1

DMF-MAJ-T-1电磁脉冲阀分解图  
DMF-MAJ-T-1 separate diagram of valve

7.2 MAJ-T-1型 20 (3/4")

产品编号 product's number : NO.4113101



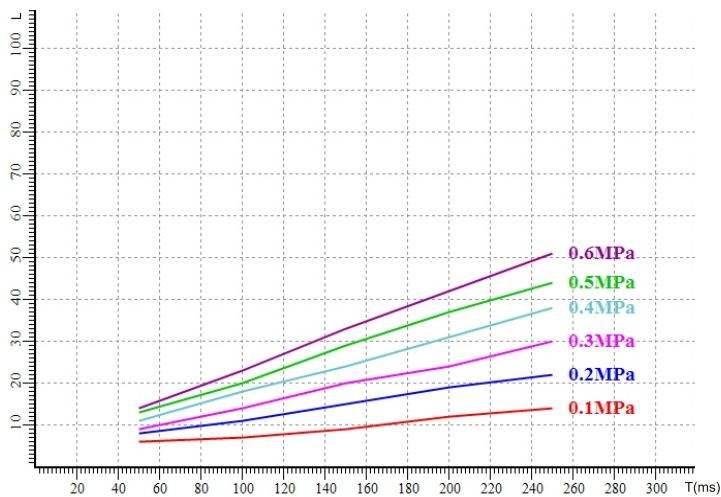
产品结构图 product structure diagram



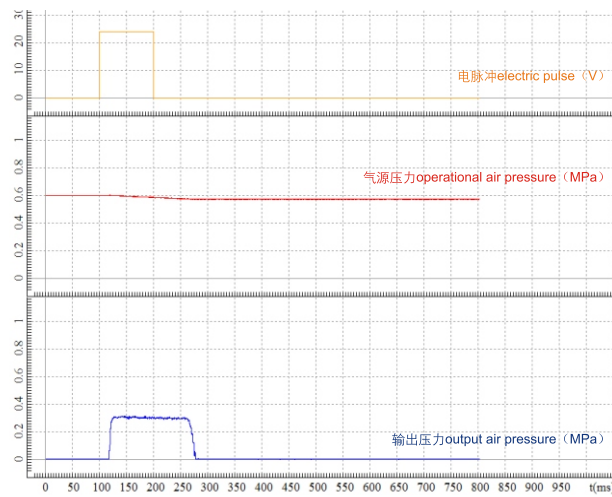
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	56
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	37
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	65
喷吹流量 blowing flow	L/Ms	0.13



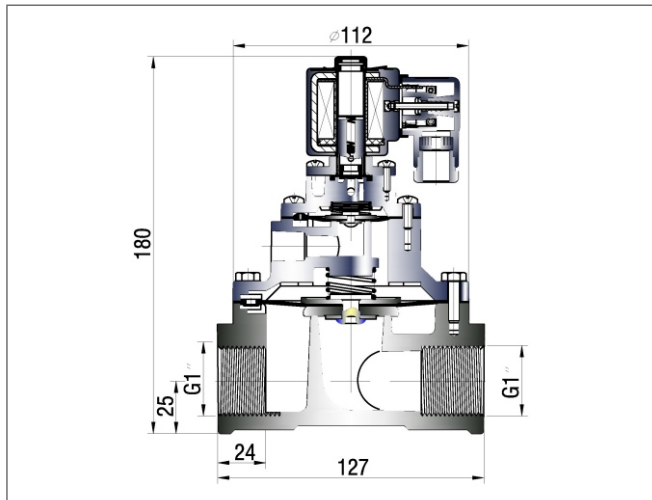
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 7.2 MAJ-T-1型 25 (1")

产品编号 product's number : NO.4113102



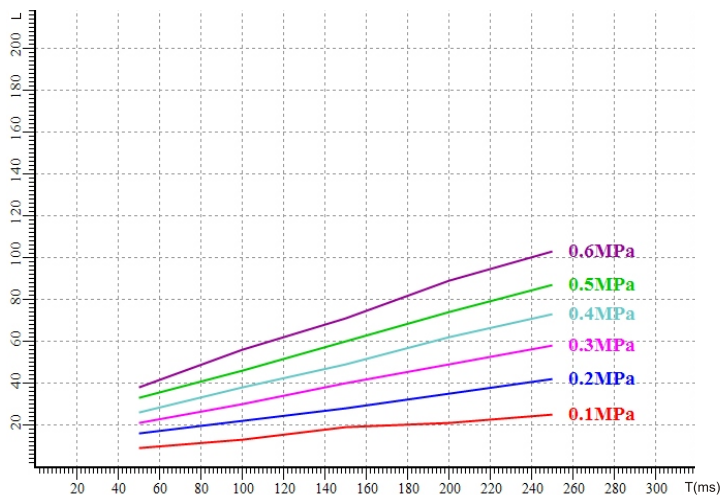
产品结构图 product structure diagram



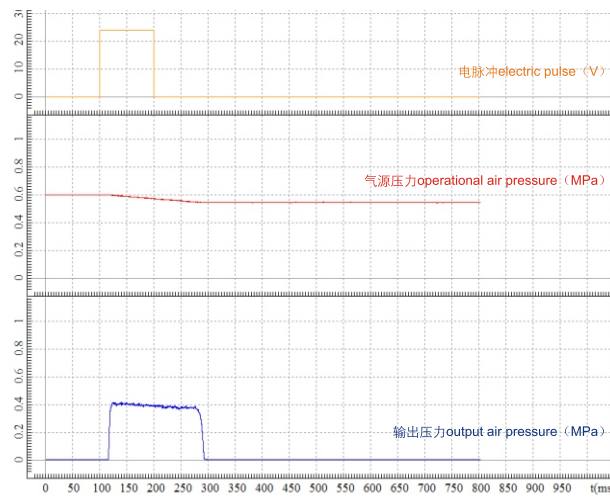
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	69
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	57
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	83
喷吹流量 blowing flow	L/Ms	0.29



喷吹气量曲线图 air flow curve

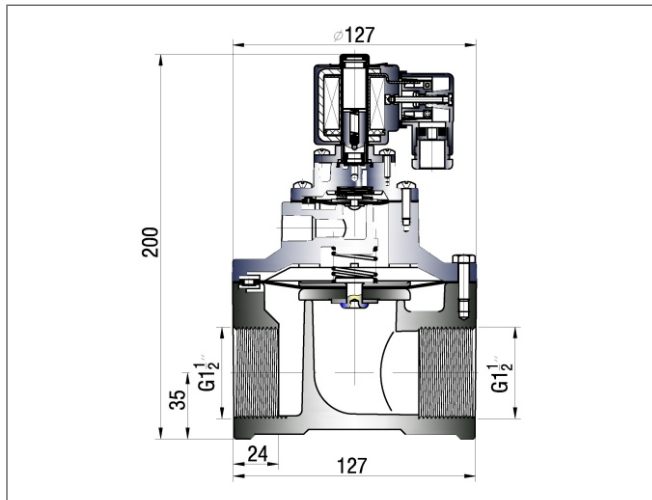


开关特性图 switch on/off character diagram



7.2 MAJ-T-1型 40 (1 1/2")

产品编号 product's number : NO.4113103

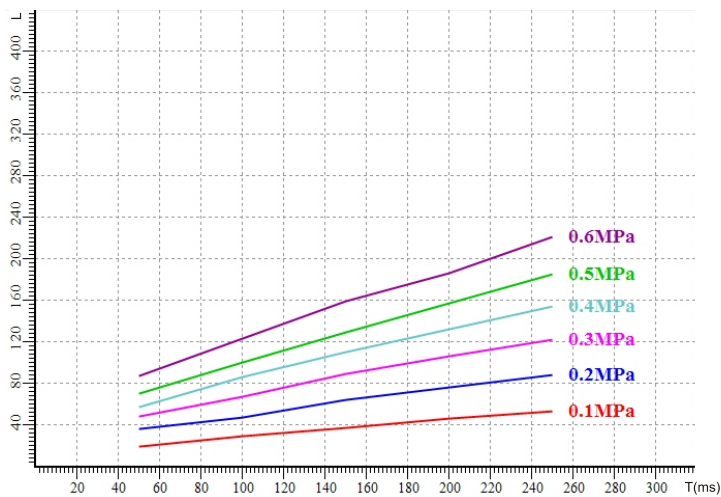


产品结构图 product structure diagram

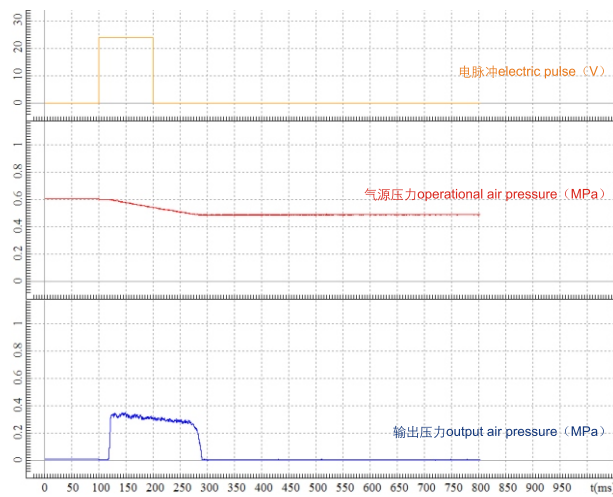
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	58
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	64
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	75
喷吹流量 blowing flow	L/Ms	0.68



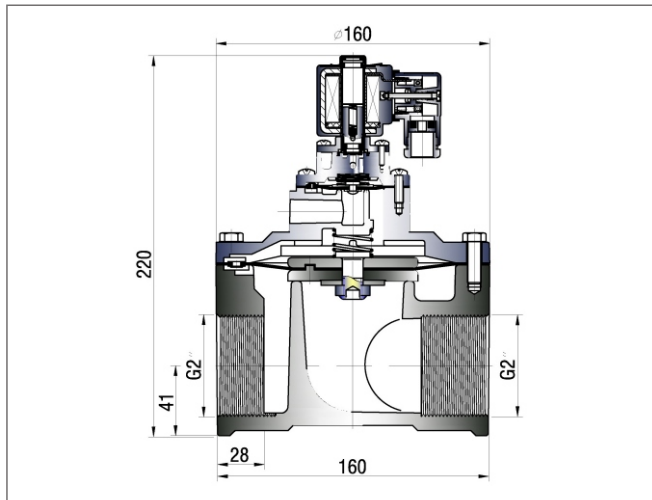
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 7.2 MAJ-T-1型 50 (2")

产品编号 product's number : NO.4113104



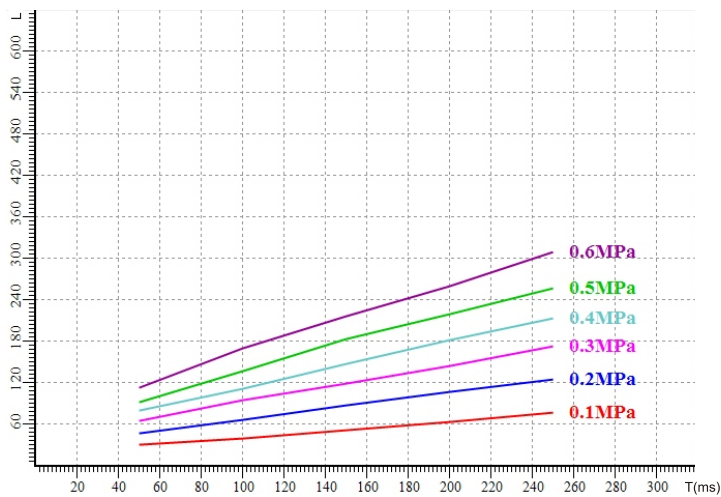
产品结构图 product structure diagram



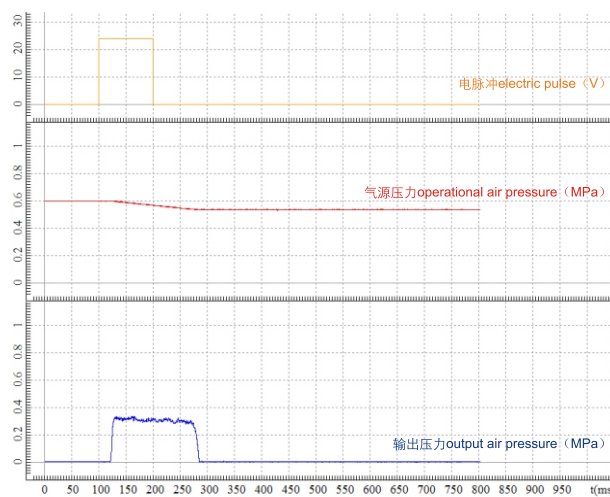
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	57
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	45
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	81
喷吹流量 blowing flow	L/Ms	1.25



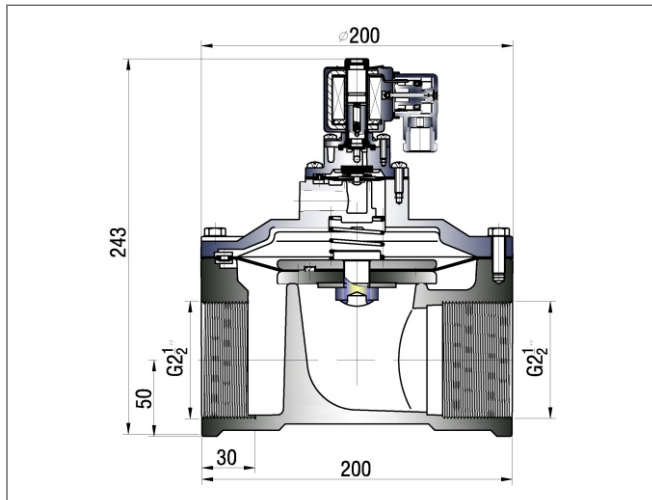
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

7.2 MAJ-T-1型 62 (2 1/2")

产品编号 product's number : NO.4113105

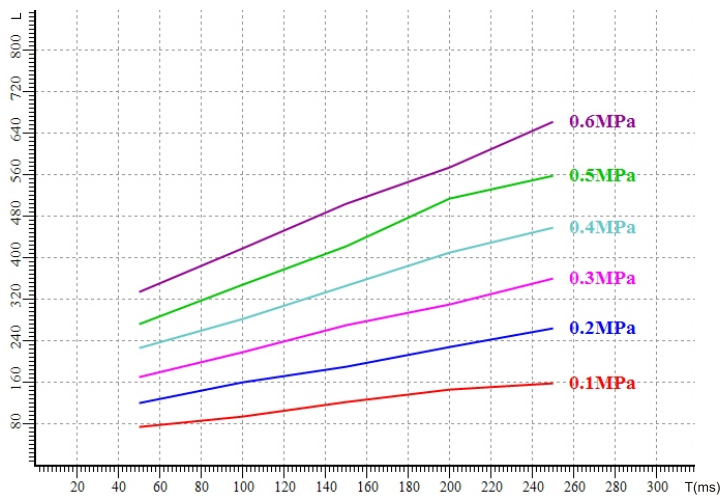


产品结构图 product structure diagram

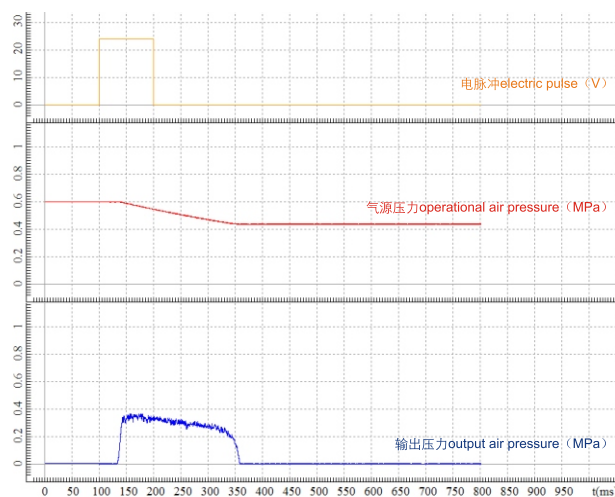
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	63
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	31
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	118
喷吹流量 blowing flow	L/Ms	1.84

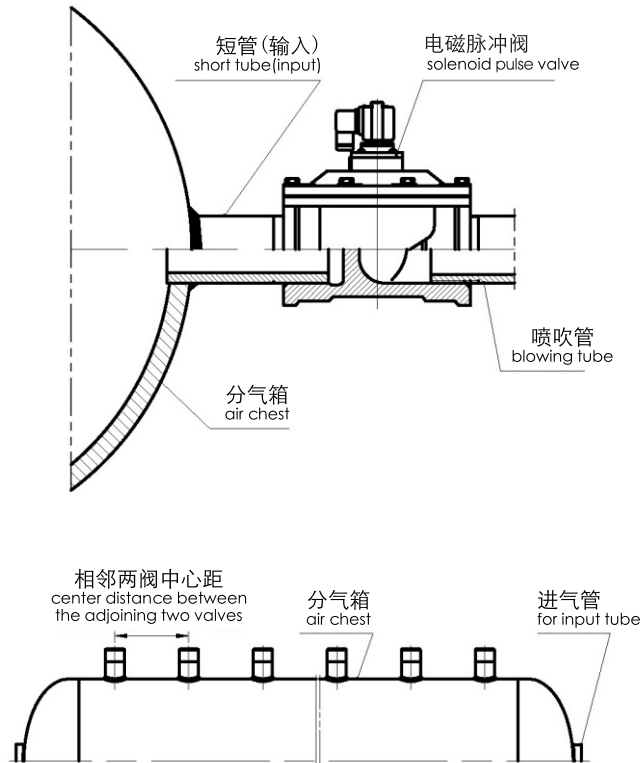


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

### 7.3 MAJ-T-1型安装方法 MAJ-T-1 INSTALLATION



单位unit: mm

规格 size	分气箱(圆) air chest (round)					喷吹管 blowing tube			相邻二阀 中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	短管 short tube			外径 external diameter	内径 internal diameter	螺纹长度 length of thread of screw	
			外径 external diameter	内径 internal diameter	螺纹长度 length of thread of screw				
20 (3/4")	Φ114	Φ20	Φ27	Φ20	23	Φ27	Φ20	23	106
25 (1")	Φ146	Φ20	Φ34	Φ25	28	Φ34	Φ25	35	122
40 (1 1/2")	Φ168	Φ25	Φ48	Φ40	28	Φ48	Φ40	35	137
50 (2")	Φ219	Φ40	Φ60	Φ50	32	Φ60	Φ50	40	170
62(2 1/2")	Φ273	Φ50	Φ76	Φ62	35	Φ76	Φ62	40	210

## 8. DMF-MAJ-Q-1型(其它产品) DMF-MAJ-Q-1 TYPE 产品编号 product's number : NO.4110100

DMF-MAJ-Q-1(其它产品)系列产品照片  
DMF-MAJ-Q-1 series products' photograph

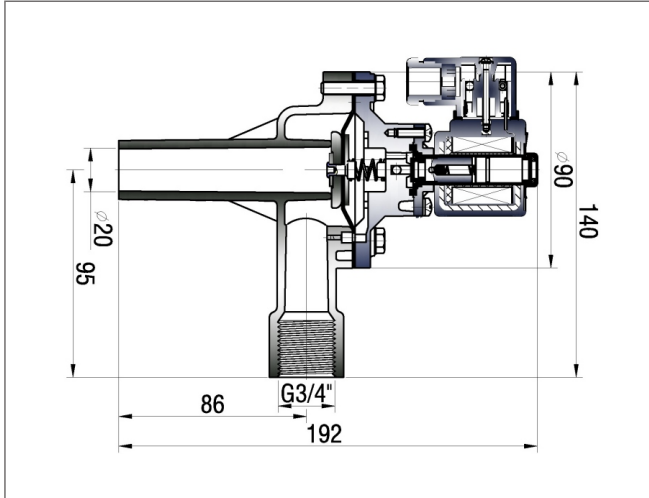
近年来由于脉冲喷吹袋式除尘器的发展。电磁脉冲阀新的品种不断增加，为了适应这个趋势，本产品手册全系列图、型号含义和规格表示对电磁脉冲阀产品型号、规格的命名和表示作了规定。主要根据电磁脉冲阀的开关元件、输出通径和连接方式为依据，并对今后可能出现的新品种，在其型号、规格的命名和表示上留有空间。对于已经在脉冲喷吹袋式除尘器上应用，但按现有分类难以归类的橡胶膜片类电磁脉冲阀归入DMF-MAJ-Q-1型，称为“其它产品”。

Recent advancements in pulse bag filter have resulted in the continuous introduction of new valve designs. To adapt into this trend, this new edition handbook updates the different valve series' product pictures, model code format and standardizes the model codes on different valve models. The coding system is mainly dependent on the valves' on-off configuration, output diameter, installation method and potential future product modifications. For all diaphragm valves which have already been installed on filtration systems cannot be categorized according to the existing code system, they are coded in DMF-MAJ-Q-1 type called "other products".



8.1 MAJ-Q-1型 20 (3/4") (Z)

产品编号 product's number : NO.4110101

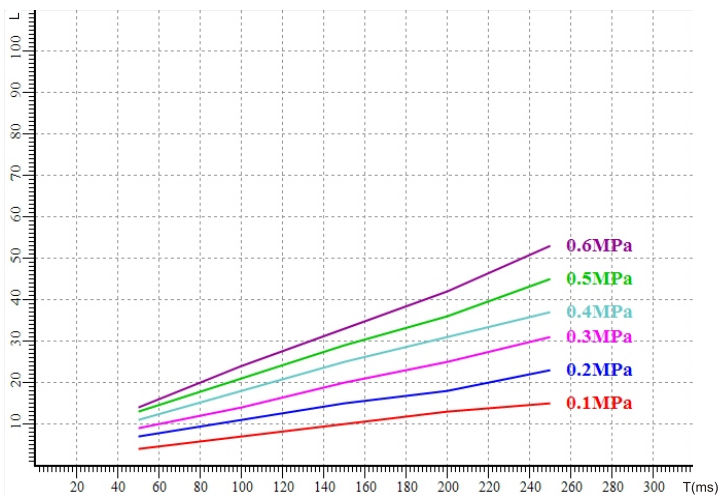


产品结构图 product structure diagram

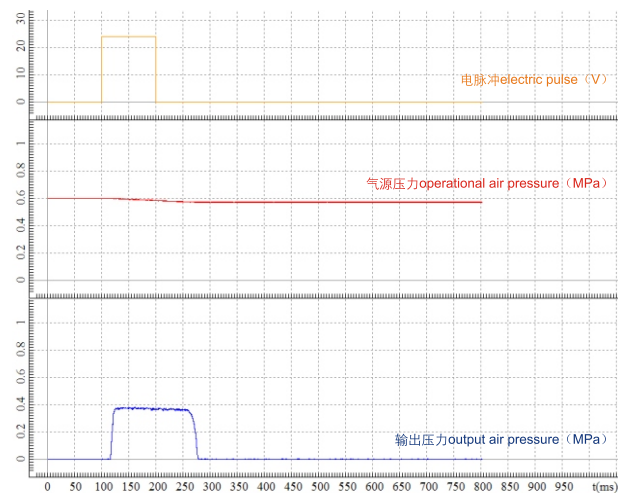
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	63
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	39
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	77
喷吹流量 blowing flow	L/Ms	0.12



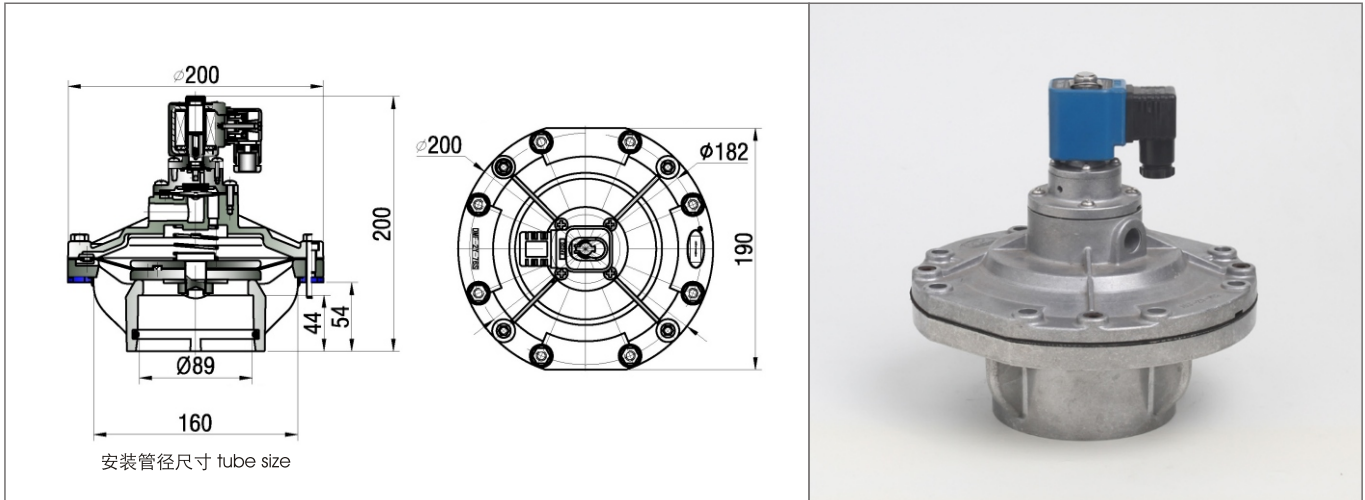
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

8.2 MAJ-Q-1型 76 (3") (Y)

产品编号 product's number : NO.4110102

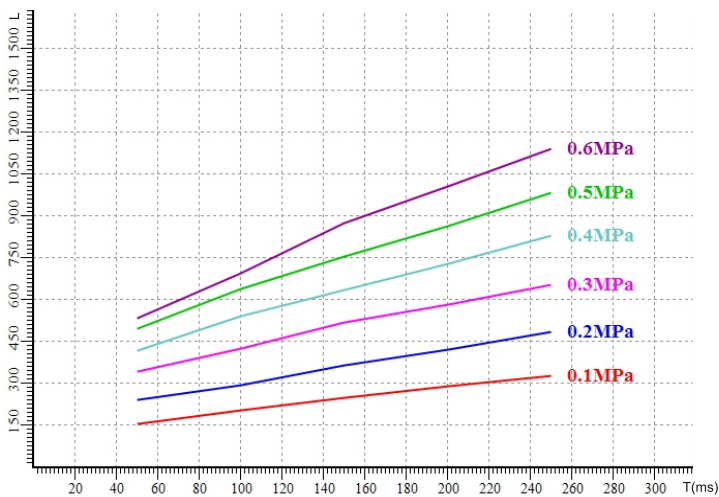


产品结构图 product structure diagram

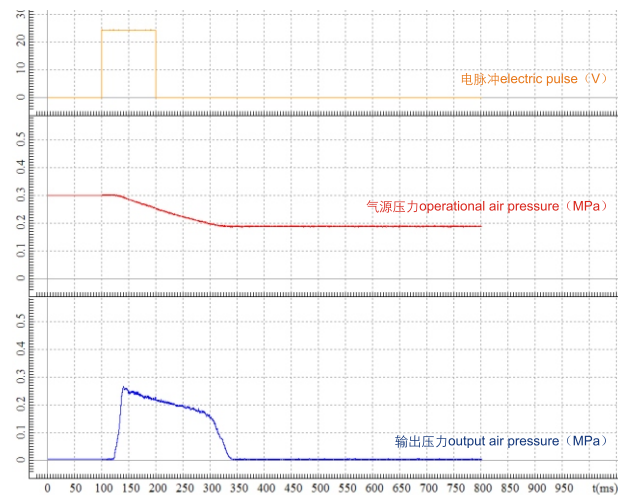
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	85
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	15
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	116
喷吹流量 blowing flow	L/Ms	1.93



喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 9. DMF-ZAJ-Z-4型 DMF-ZAJ-Z-4 TYPE

产品编号 product's number : NO.4211400

DMF-ZAJ-Z-4系列产品照片  
DMF-ZAJ-Z-4 series products' photograph

DMF-ZAJ-Z-4型电磁脉冲阀采用柱塞作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-ZAJ-Z-4 electromagnetic valve employs the piston as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

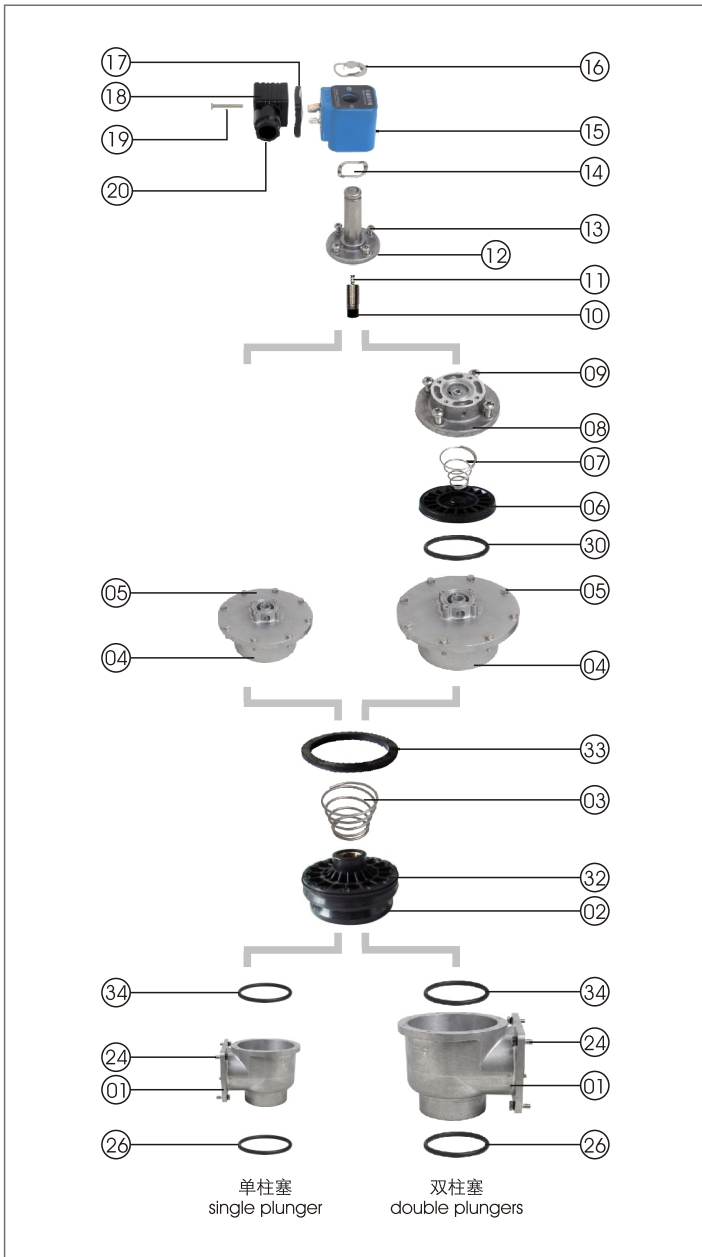
本系列脉冲阀的输入口与输出口夹角 $90^\circ$ ，称为直角阀，其输入口为长腰形，并与分气箱（气包）法兰连接，喷吹管插入输出口。安装方便，气流通畅。适合于各种过滤单元的清灰。

Input and output of pulse valve within this series is  $90^\circ$ , called Right Angle Valve. The input is oval designed to have pipe threads. The valve is easy to install which is applicable for various kinds of filter equipments by providing satisfactory cleaning vibrating flow.

本系列电磁脉冲阀有：20mm (3/4")、25mm (1")、40mm (1 1/2")、50mm (2")、62mm (2 1/2")、76mm (3")、89 mm (3 1/2")、102mm (4")八种规格。其中20mm (3/4")、25mm (1")为单柱塞阀，40mm (1 1/2")~102mm (4")为双柱塞阀。

There are eight products specification in this serious. They are 20mm (3/4")、25mm(1")、40mm(1 1/2")、50mm(2")、62mm(2 1/2")、76mm(3")、89mm(3 1/2")、102mm(4"). Among which 20mm (3/4")、25mm(1") are the single piston design, and from 40mm(1 1/2") to 102mm(4") are double piston design.

9.1 ZAJ-Z-4型分解图及明细表 ZAJ-Z-4 SEPARATE DIAGRAM AND INDEX LIST



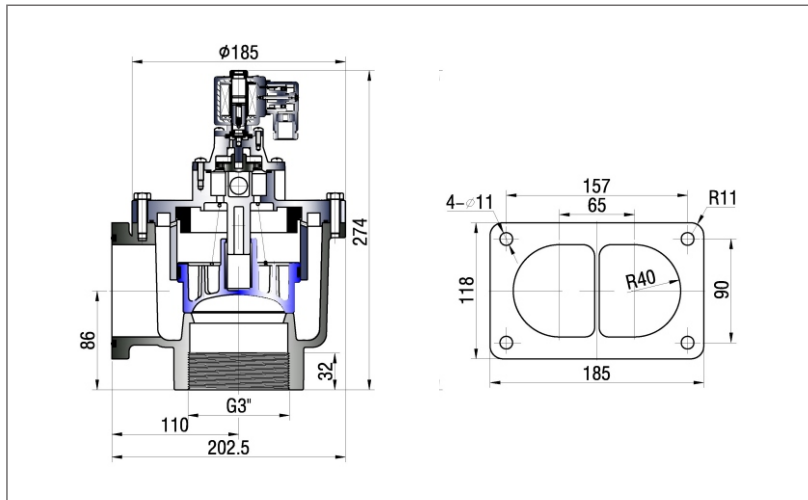
DMF-ZAJ-Z-4电磁脉冲阀分解图  
DMF-ZAJ-Z-4 separate diagram of valve

明细表 illustrative list

序号 Number	零件名称 components name	配置 disposition	
		单柱塞 single plunger	双柱塞 double plungers
01	阀体 valve body	1	1
02	柱塞 (主) plunger (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	5	6-8
06	柱塞 (副) plunger (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1
21-23	-----		
24	螺栓 bolt	4	4
25	-----		
26	O型密封圈 O sealing washer	1	1
27-29	-----		
30	O型密封圈 O sealing washer		1
31	-----		
32	密封环 sealing ring	1	1
33	缓冲垫 buffer pad	1	1
34	O型密封圈 O sealing washer	1	1

9.2 ZAJ-Z-4型 76 (3")

产品编号 product's number : NO.4211406

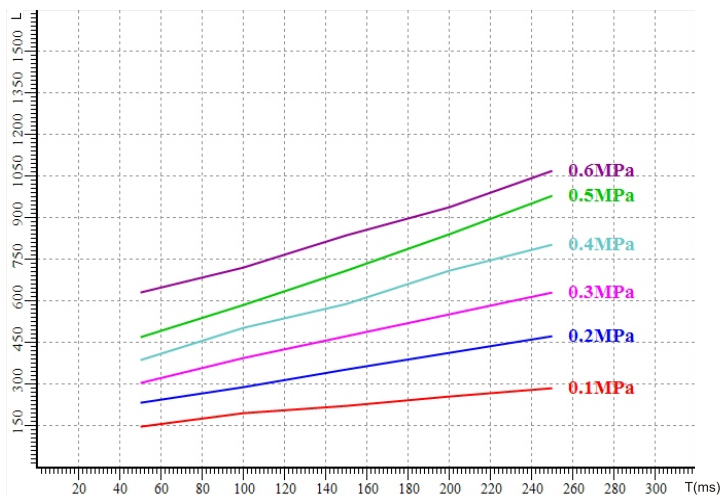


产品结构图 product structure diagram

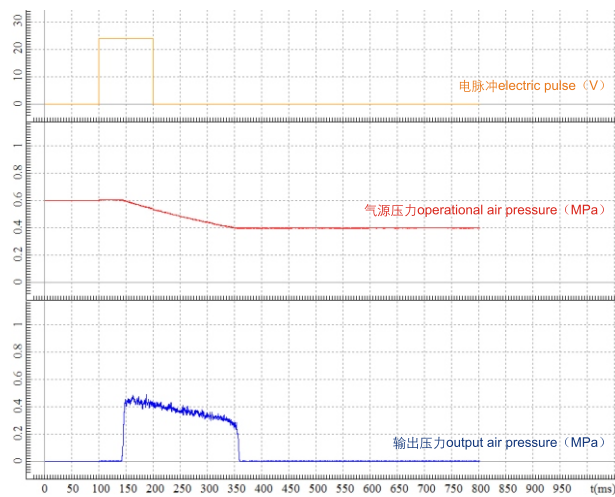
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	79
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	72
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	114
喷吹流量 blowing flow	L/Ms	3.53



喷吹气量曲线图 air flow curve

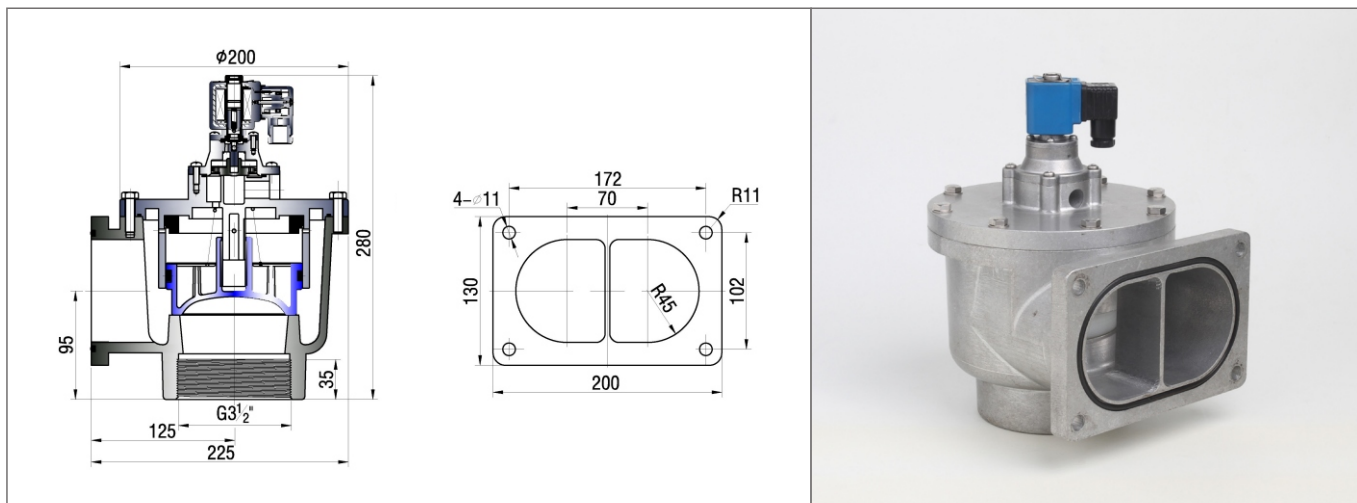


开关特性图 switch on/off character diagram



9.2 ZAJ-Z-4型 89 (3 1/2")

产品编号 product's number : NO.4211407

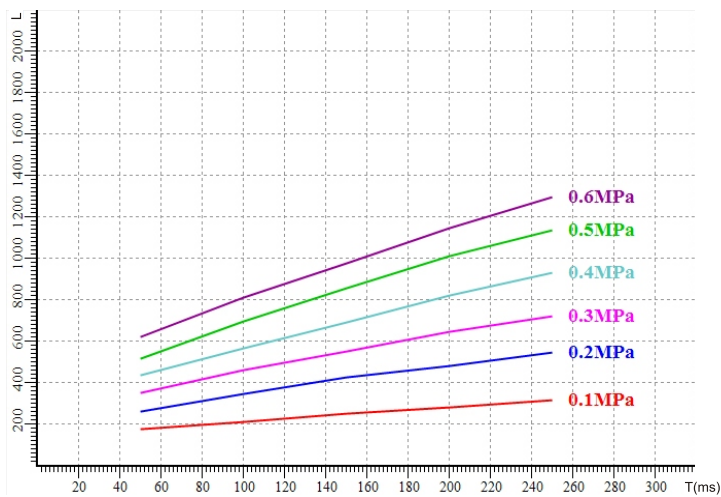


产品结构图 product structure diagram

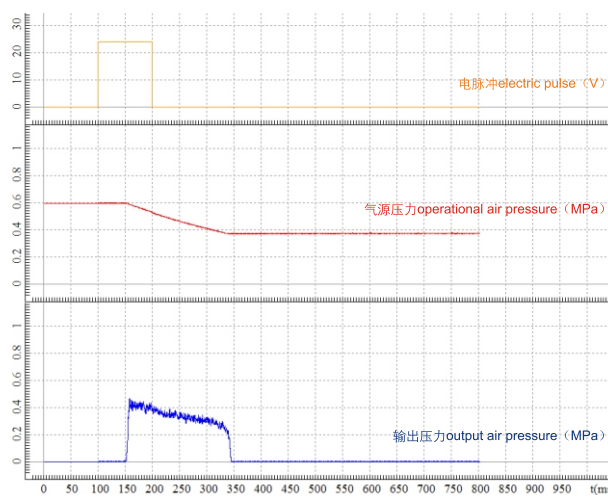
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	78
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	77
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	94
喷吹流量 blowing flow	L/Ms	4.40



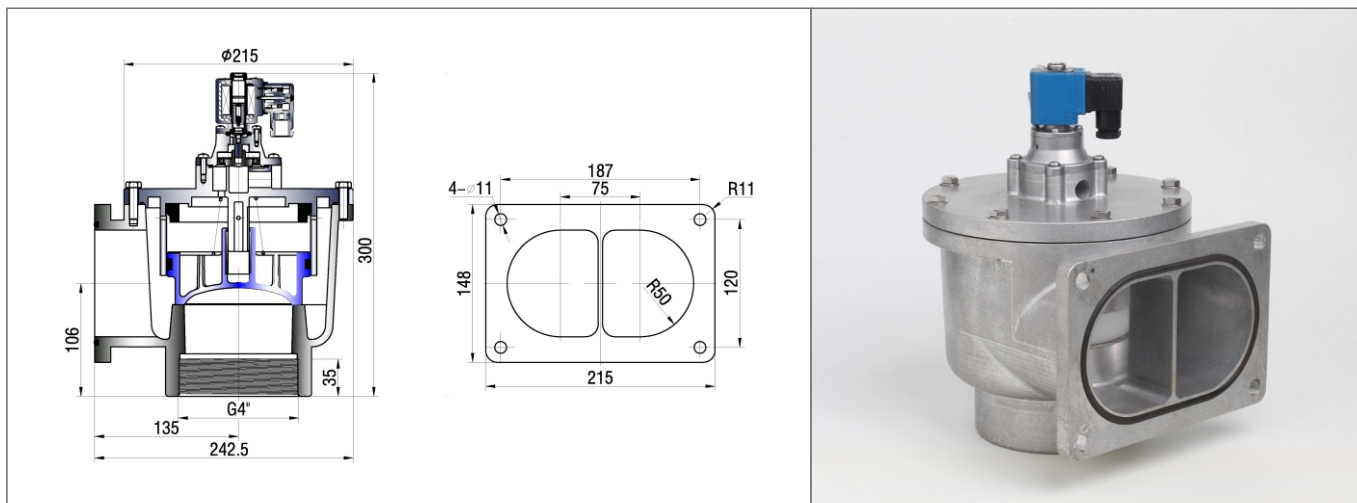
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

9.2 ZAJ-Z-4型 102 (4")

产品编号 product's number : NO.4211408

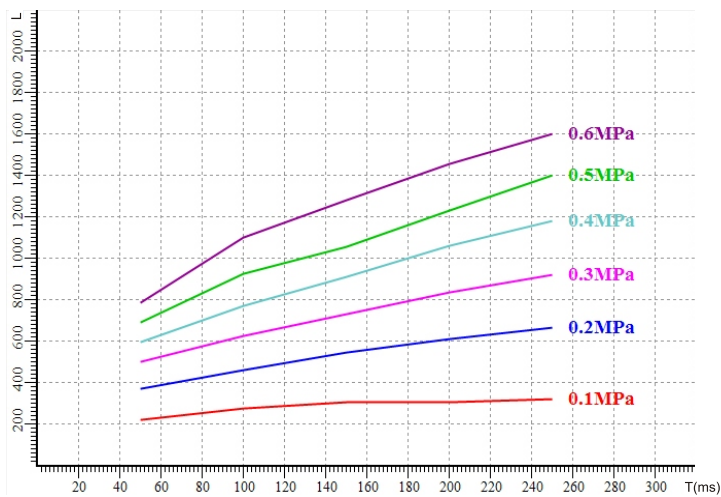


产品结构图 product structure diagram

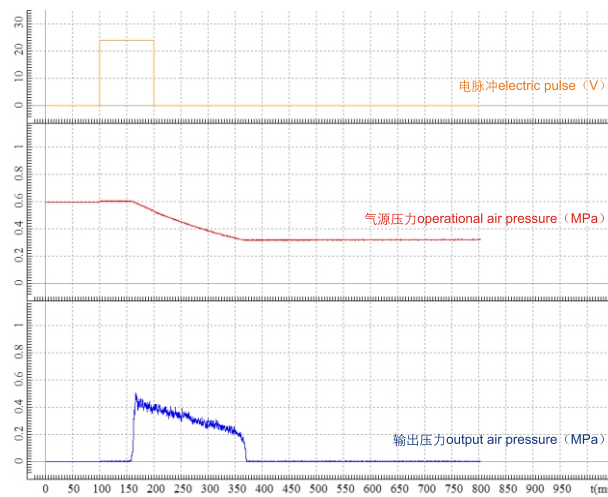
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	83
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	65
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	114
喷吹流量 blowing flow	L/Ms	5.34

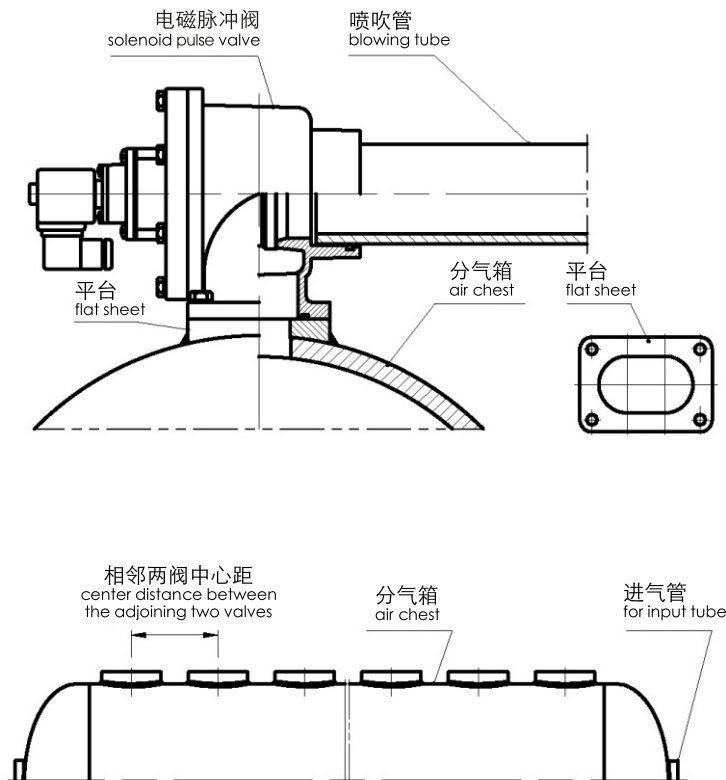


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

### 9.3 ZAJ-Z-4型安装方法 ZAJ-Z-4 INSTALLATION



单位unit: mm

规格 size	分气箱(圆) air chest (round)				喷吹管 blowing tube			相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管内径 internal diameter for input tube	平台 flat sheet		外径 external diameter	内径 internal diameter	插入长度 length to insert	
			外形尺寸 external size	中心孔 central hole				
76 (3")	Φ325	Φ62	185X118	145X80(R40)	Φ89	Φ76	40	195
89 (3 1/2")	Φ351	Φ76	200X130	160X90(R45)	Φ102	Φ89	40	210
40 (4")	Φ402	Φ76	215X148	175X100(R50)	Φ114	Φ102	40	225

## 10. DMF-ZAJ-Y-1型 DMF-ZAJ-Y-1 TYPE

产品编号 product's number : NO.4212100

DMF-ZAJ-Y-1系列产品照片  
DMF-ZAJ-Y-1 series products' photograph

DMF-ZAJ-Y-1型电磁脉冲阀采用柱塞作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-ZAJ-Y-1 electromagnetic valve employs the piston as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

本系列脉冲阀直接安装在分气箱（气包）上，称为淹没式阀（也称嵌入式阀，低压阀）。将阀体凸缘上安装孔用螺栓与分气箱固定，输出口通过连接管延伸至分气箱外与除尘器喷吹管相连接。具有流通特性好，压力损失小，能在气源压力较低的场合提供理想的清灰振动气流，适用于各种过滤单元的清灰。

Valves of this series are directly installed on the air chest (air bag) which is called immersion valve (also called as injection valve or low pressure valve). During the installation, one should fix the mounting hole on the collar flange of the valve with the air chest through bolts and connect the dust blowing tube with the output port extension tube outside the air chest. The character of the valve is good flow, low pressure loss and could provide satisfactory cleaning vibrating flow in the low pressure environments. The valve is applicable for various kinds of filter equipments.

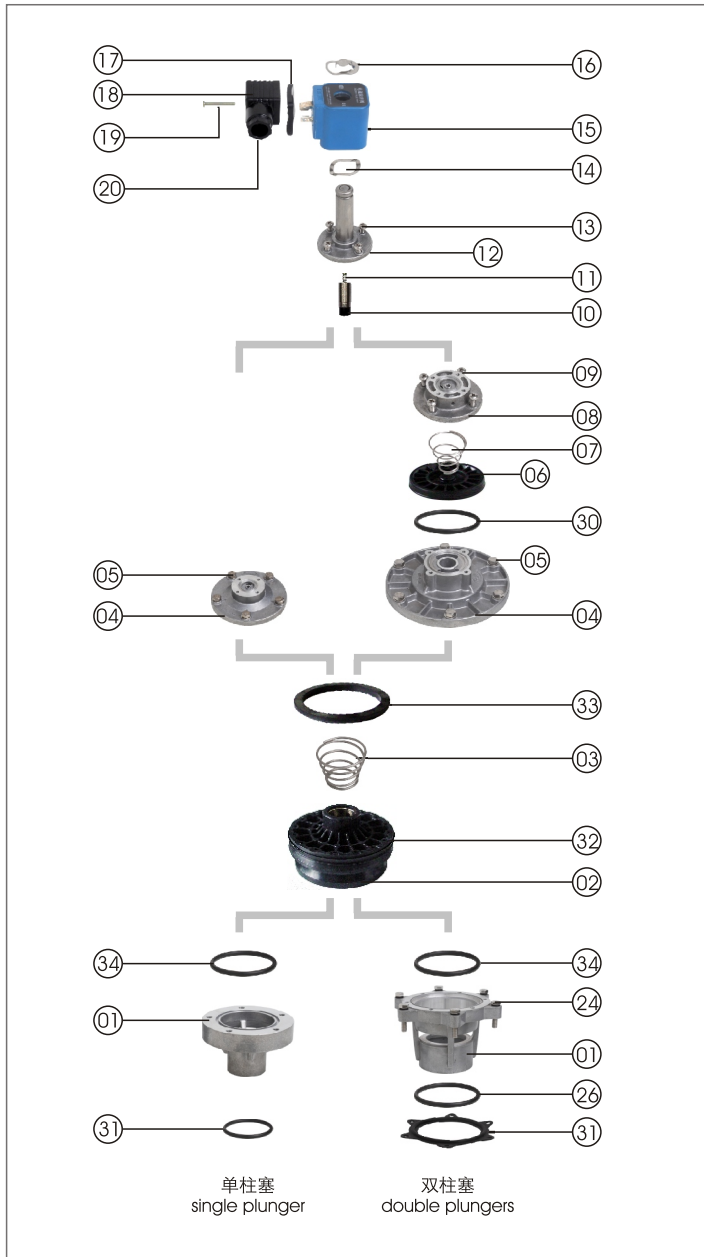
本系列电磁脉冲阀有：25mm (1")、40mm (1 1/2")、50mm (2")、62mm (2 1/2")、76mm (3")、89mm (3 1/2")、102mm (4")七种规格。其中25mm (1")为单柱塞阀，40mm (1 1/2")~102mm (4")为双柱塞阀。

There are seven products specification in this serious. They are 25mm(1")、40mm(1 1/2")、50mm(2")、62mm(2 1/2")、76mm(3")、89mm(3 1/2")、102mm(4"). Among which 25mm(1")、 is single piston valve and 40mm(1 1/2")~102mm(4") are double pistons valve.

脉冲阀输出口与连接管有螺纹连接和滑动连接二种方式，25mm (1")、40mm (1 1/2")为螺纹连接，50mm (2")~102mm (4")为滑动连接。

The connection between pulse valve output and connection tube are accomplished in two ways: thread connection and slide connection. Among which 25mm(1") and 40mm(1 1/2") are in thread connection, 50mm(2") ~ 102mm(4") are in slide connection.

10.1 ZAJ-Y-1型分解图及明细表 ZAJ-Y-1 SEPARATE DIAGRAM AND INDEX LIST



DMF-ZAJ-Y-1电磁脉冲阀分解图  
DMF-ZAJ-Y-1 separate diagram of valve

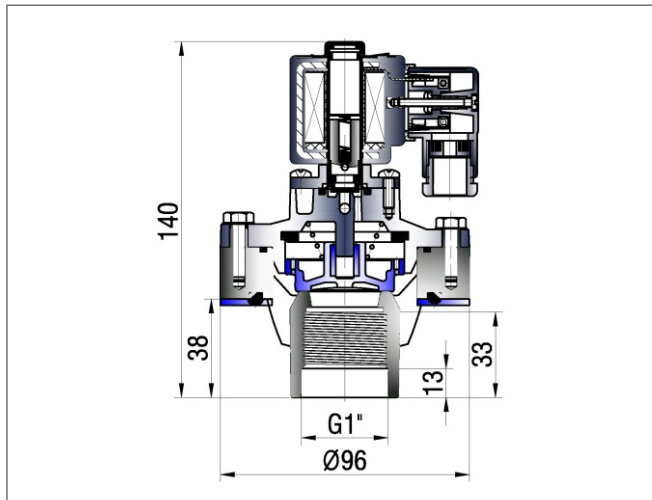
明细表 illustrative list

序号 Number	零件名称 components name	配置 disposition	
		单柱塞 single plunger	双柱塞 double plungers
01	阀体 valve body	1	1
02	柱塞 (主) plunger (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	5	6-8
06	柱塞 (副) plunger (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1
21-23	-----		
24	螺栓 bolt		6
25	-----		
26	O型密封圈 O sealing washer	1	1
27-29	-----		
30	O型密封圈 O sealing washer		1
31	密封圈 sealing washer	1	1
32	密封环 sealing ring	1	1
33	缓冲垫 buffer pad	1	1
34	O型密封圈 O sealing washer	1	1



10.2 ZAJ-Y-1型 25 (1")

产品编号 product's number : NO.4212101

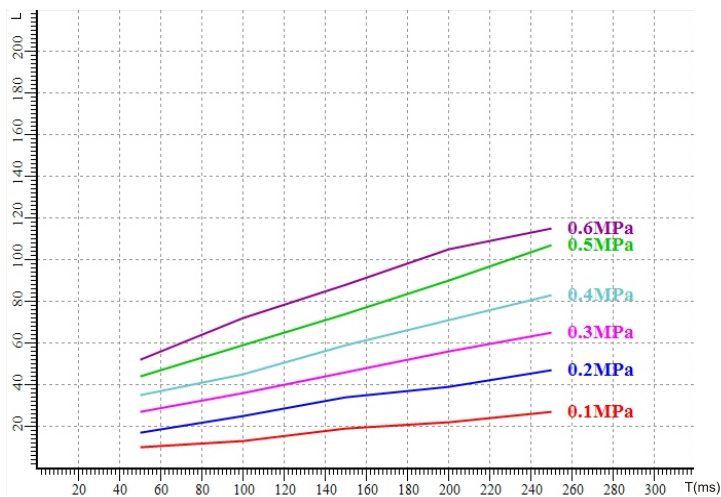


产品结构图 product structure diagram

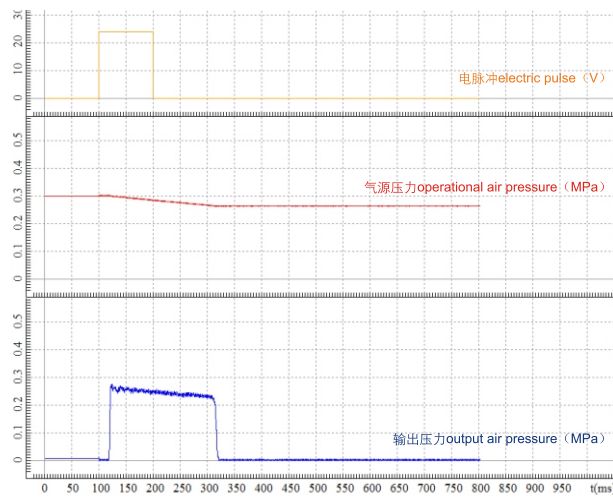
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	91
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	63
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	100
喷吹流量 blowing flow	L/Ms	0.18



喷吹气量曲线图 air flow curve

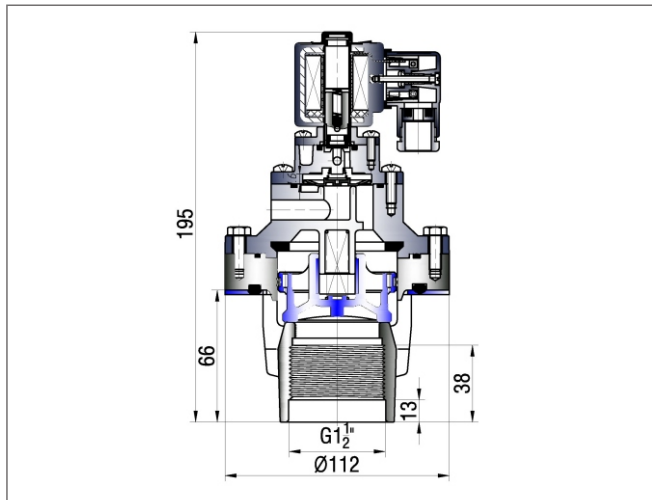


开关特性图 switch on/off character diagram



10.2 ZAJ-Y-1型 40 (1 1/2")

产品编号 product's number : NO.4212102



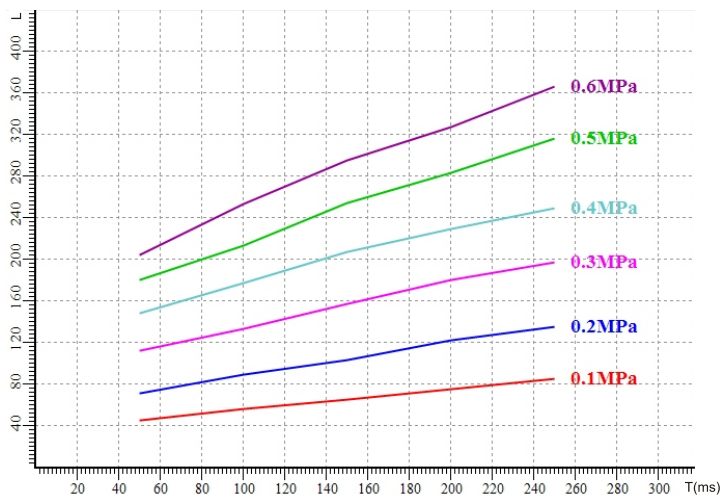
产品结构图 product structure diagram



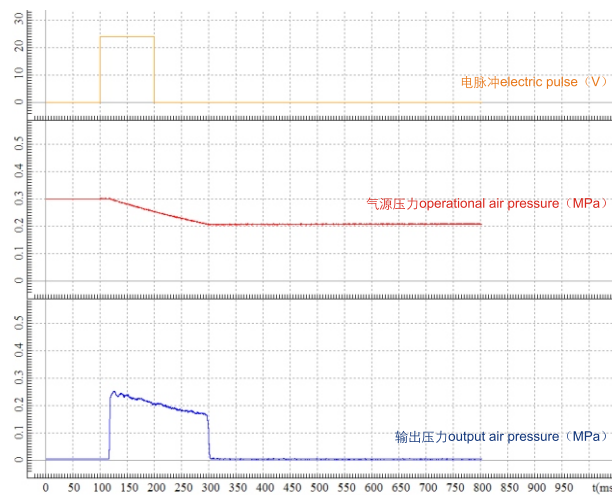
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	84
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	47
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	116
喷吹流量 blowing flow	L/Ms	0.54



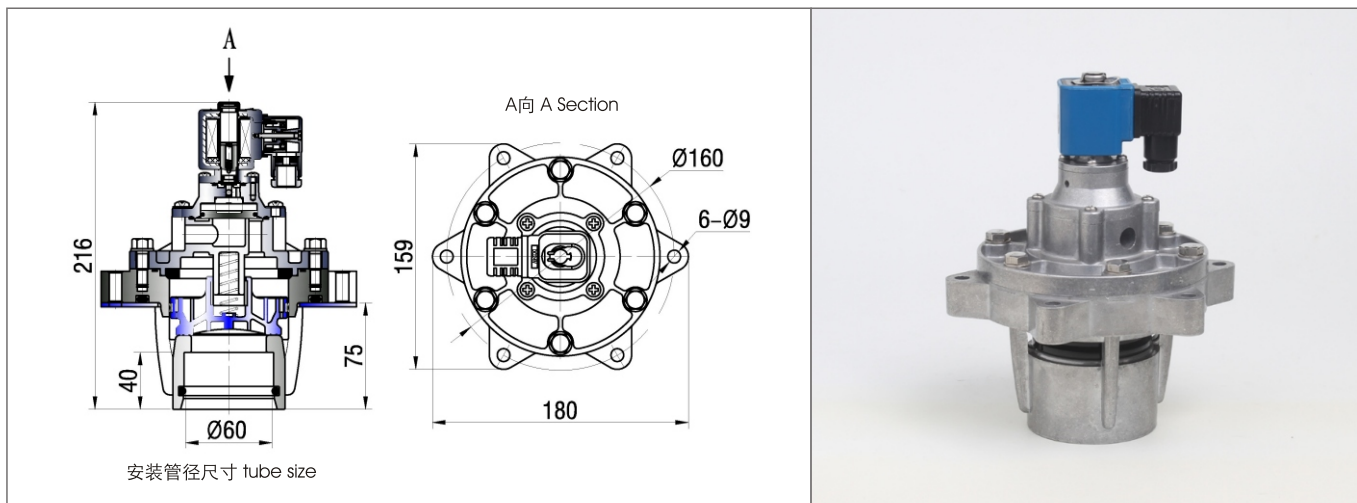
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

10.2 ZAJ-Y-1型 50 (2")

产品编号 product's number : NO.4212103

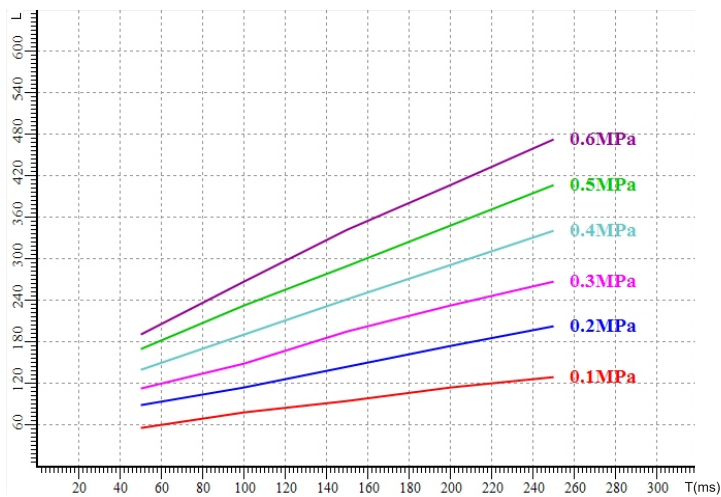


产品结构图 product structure diagram

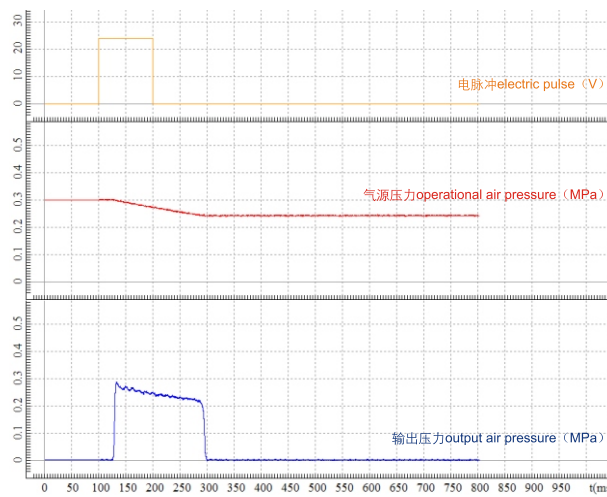
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	95
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	50
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	84
喷吹流量 blowing flow	L/Ms	0.82



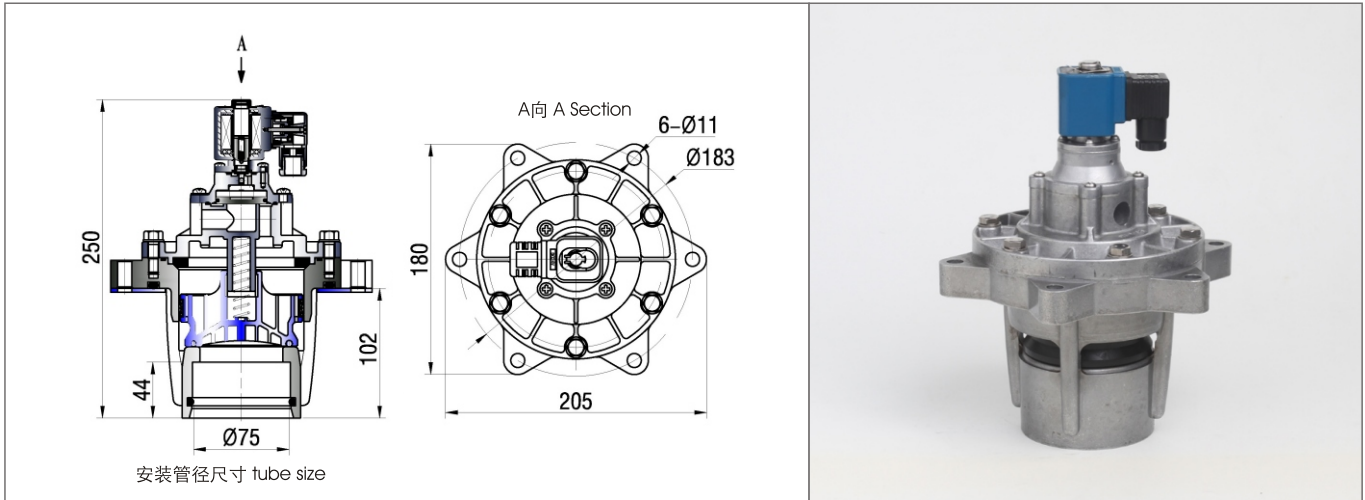
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

10.2 ZAJ-Y-1型 62 (2 1/2")

产品编号 product's number : NO.4212104

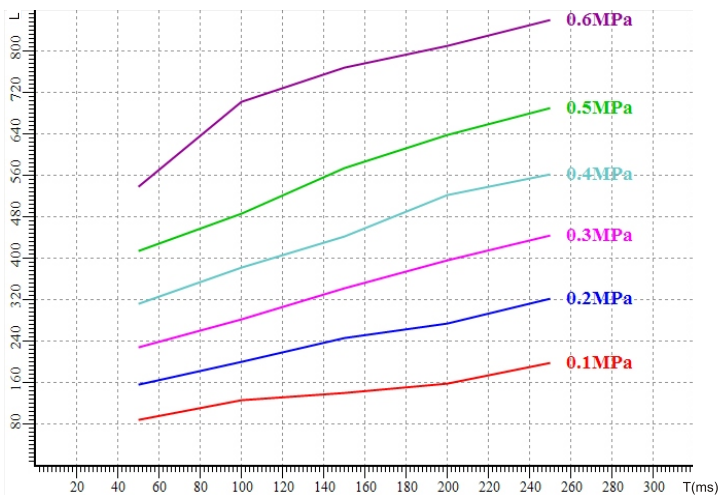


产品结构图 product structure diagram

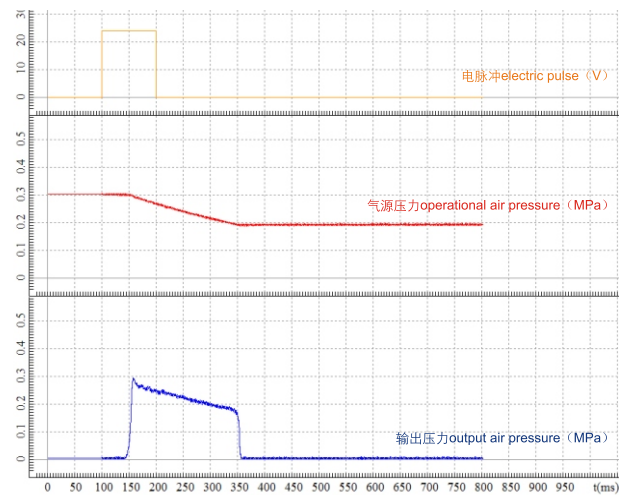
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	95
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	25
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	114
喷吹流量 blowing flow	L/Ms	1.38



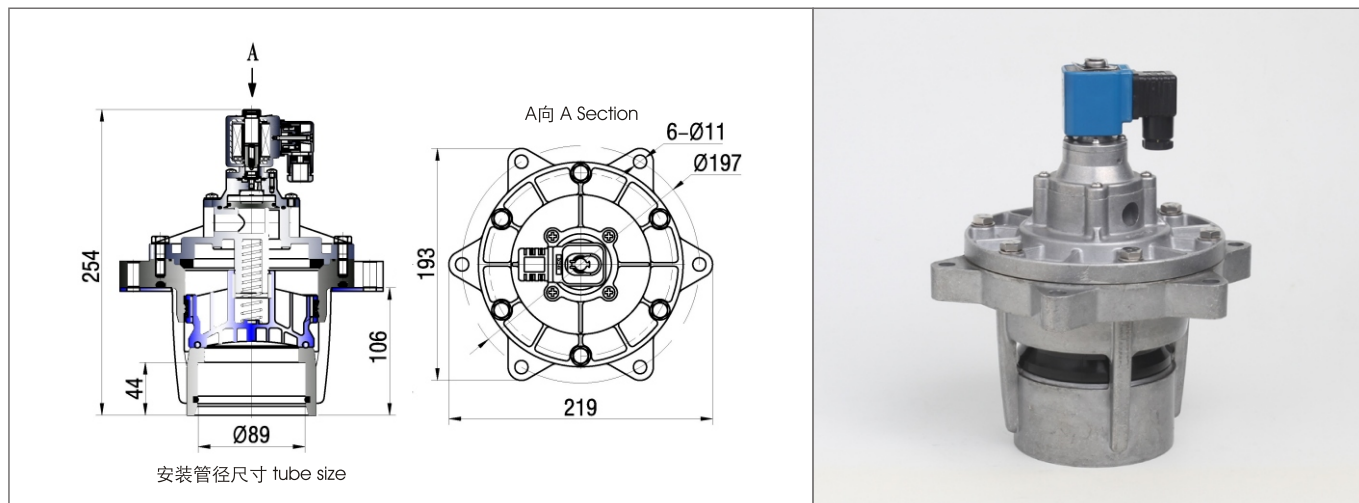
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

## 10.2 ZAJ-Y-1型 76 (3")

产品编号 product's number : NO.4212105

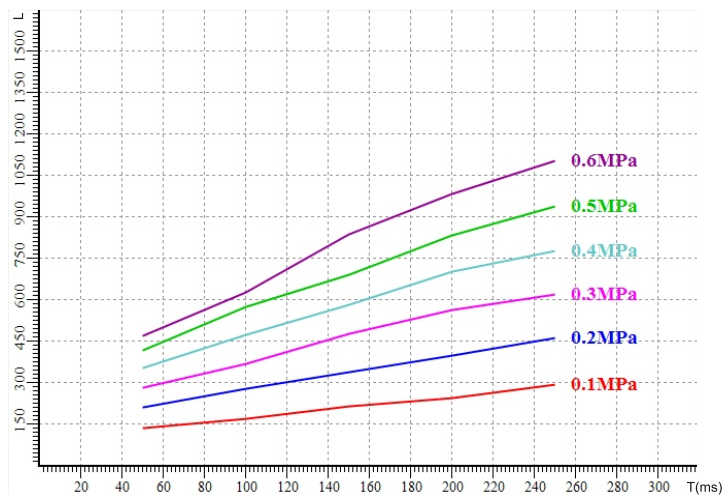


产品结构图 product structure diagram

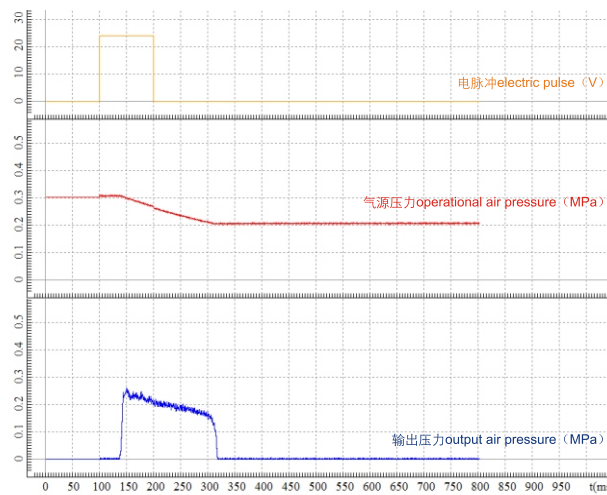
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	83
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	37
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	81
喷吹流量 blowing flow	L/Ms	2.15



喷吹气量曲线图 air flow curve

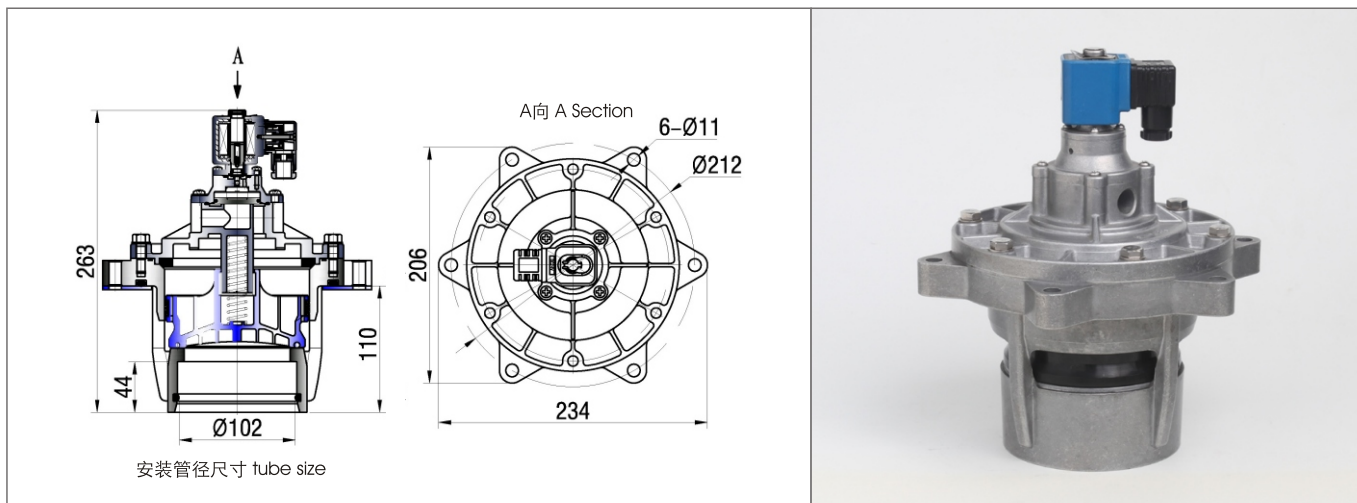


开关特性图 switch on/off character diagram



10.2 ZAJ-Y-1型 89 (3 1/2")

产品编号 product's number : NO.4212106

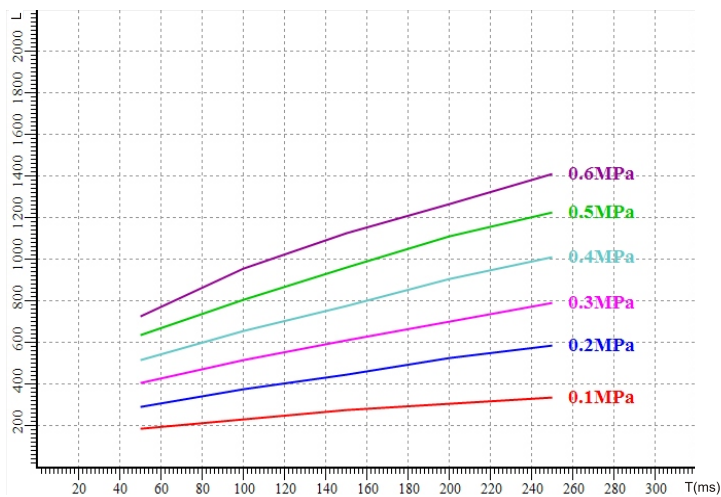


产品结构图 product structure diagram

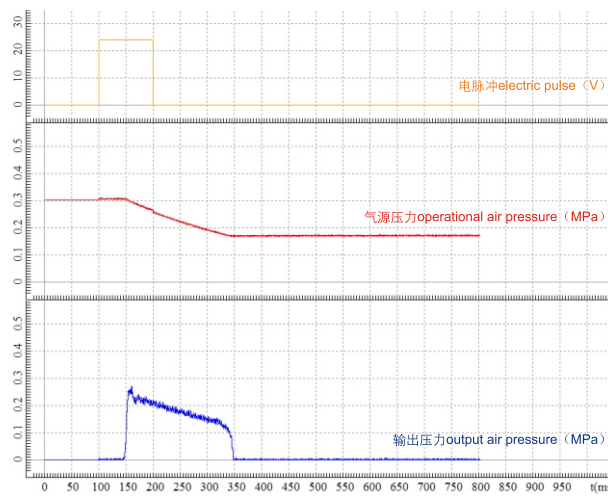
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	87
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	35
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	101
喷吹流量 blowing flow	L/Ms	2.67



喷吹气量曲线图 air flow curve

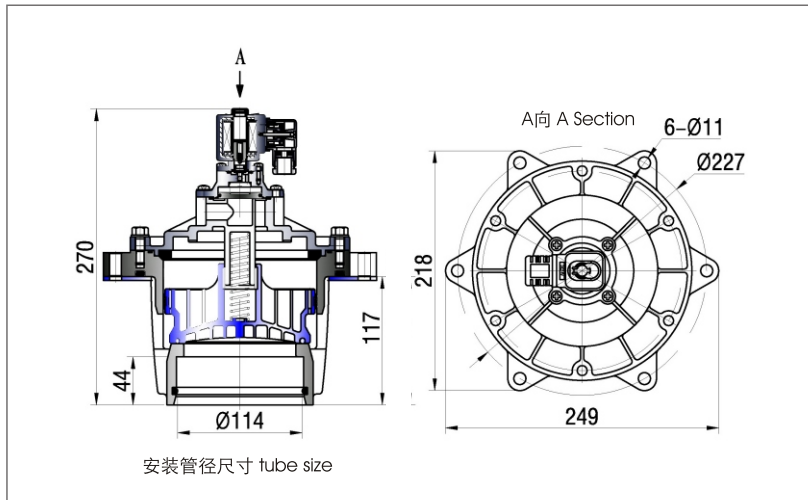


开关特性图 switch on/off character diagram



10.2 ZAJ-Y-1型 102 (4")

产品编号 product's number : NO.4212107

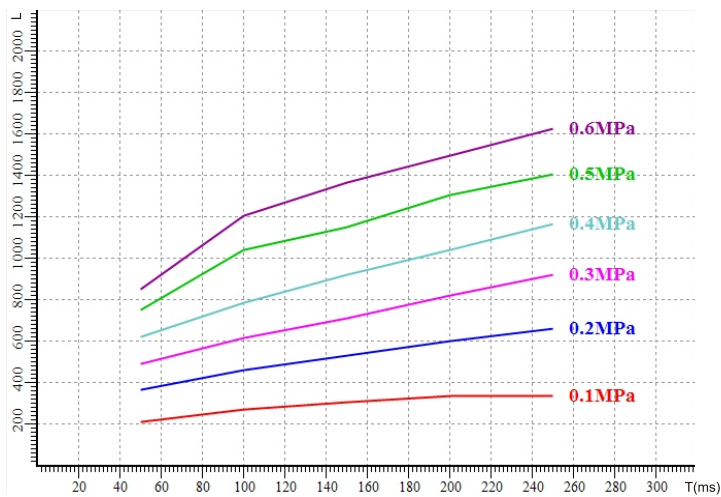


产品结构图 product structure diagram

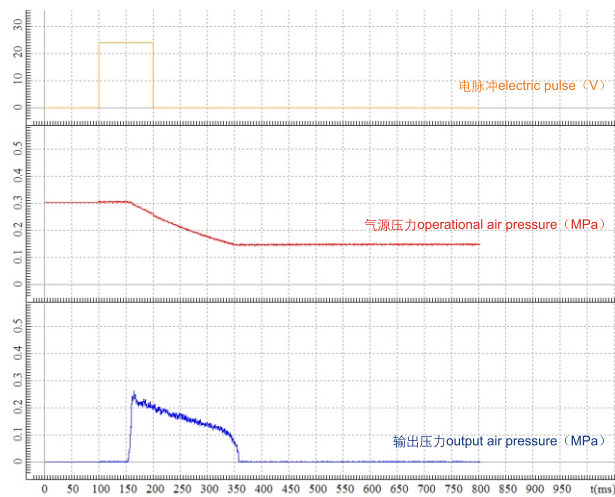
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	85
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	28
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	106
喷吹流量 blowing flow	L/Ms	3.10

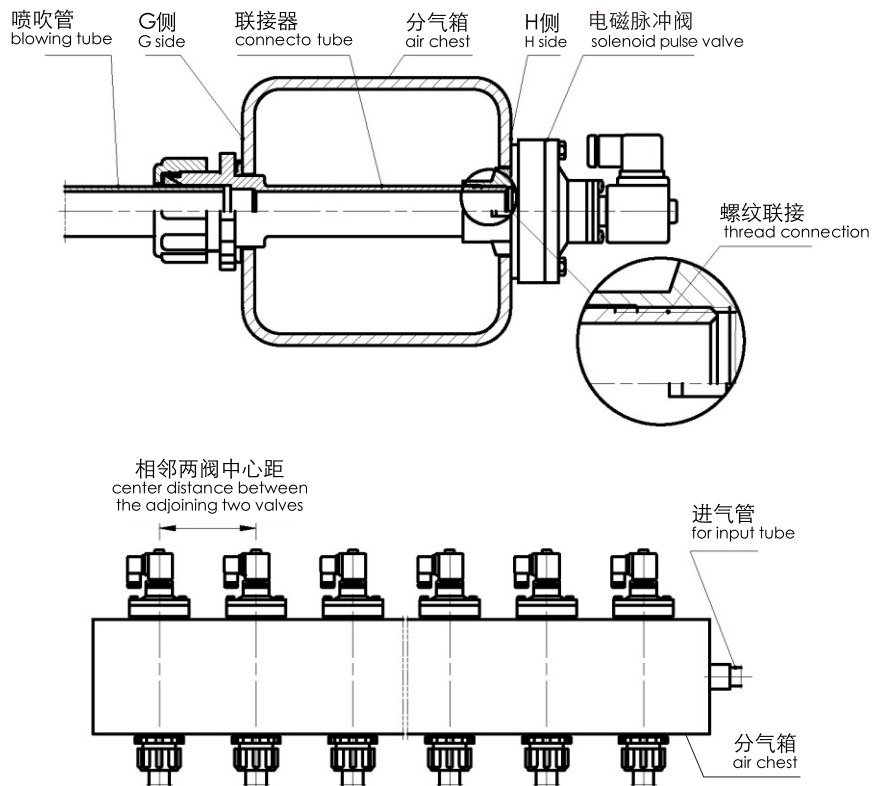


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

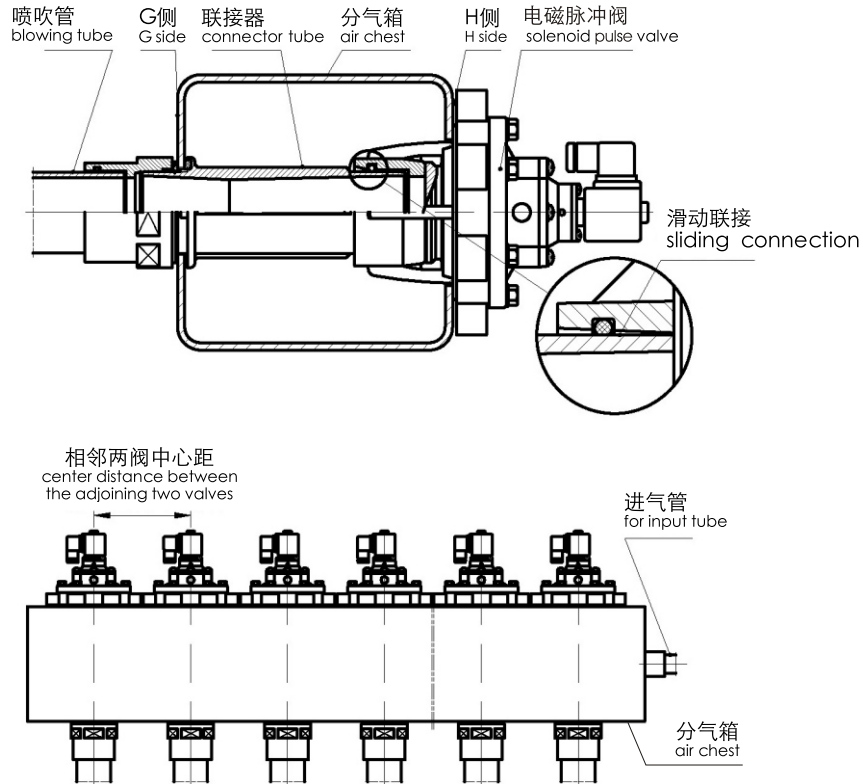
### 10.3 ZAJ-Y-1型安装方法 (1) ZAJ-Y-1 INSTALLATION(1)



单位unit: mm

规格 size	分气箱(方) air chest (square)				联接器 connector	喷吹管 blowing tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole			外径 external diameter	内径 internal diameter	插入长度 length to insert		
			H	G						
25 (1")	180×180	Φ20	Φ60	Φ50	FAP-B-1-25	Φ34	Φ25	48	螺纹 thread of screw	106
40 (1 1/2")	240×240	Φ25	Φ75	Φ62	FAP-B-1-40	Φ48	Φ40	52	螺纹 thread of screw	122

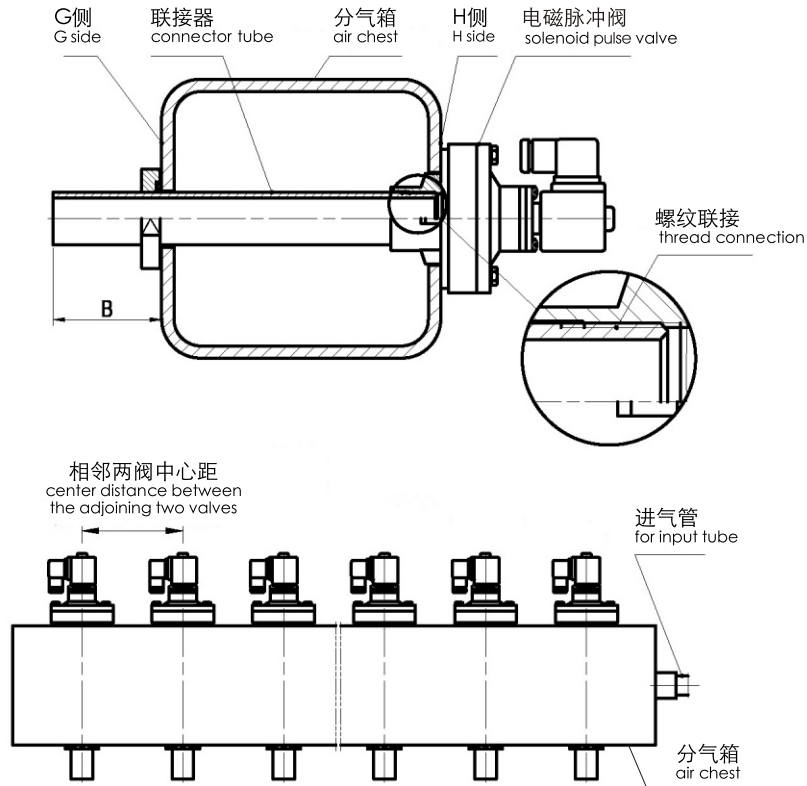
### 10.3 ZAJ-Y-1型安装方法 (2) ZAJ-Y-1 INSTALLATION(2)



单位unit: mm

规格 size	分气箱(方) air chest (square)				连接器 connector	喷吹管 blowing tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole			外径 external diameter	内径 internal diameter	插入长度 length to insert		
			H	G						
50 (2")	240×240	Φ40	Φ106	Φ61	FAP-B-1-50	Φ60	Φ50	40	滑动 sliding	159
62 (2 1/2")	300×300	Φ50	Φ120	Φ76	FAP-B-1-62	Φ76	Φ62	40	滑动 sliding	181
76(3")	300×300	Φ50	Φ134	Φ90	FAP-B-1-76	Φ89	Φ76	40	滑动 sliding	193
89(3 1/2")	350×350	Φ50	Φ150	Φ103	FAP-B-1-89	Φ102	Φ89	40	滑动 sliding	206
102(4")	400×400	Φ50	Φ164	Φ115	FAP-B-1-102	Φ114	Φ102	40	滑动 sliding	219

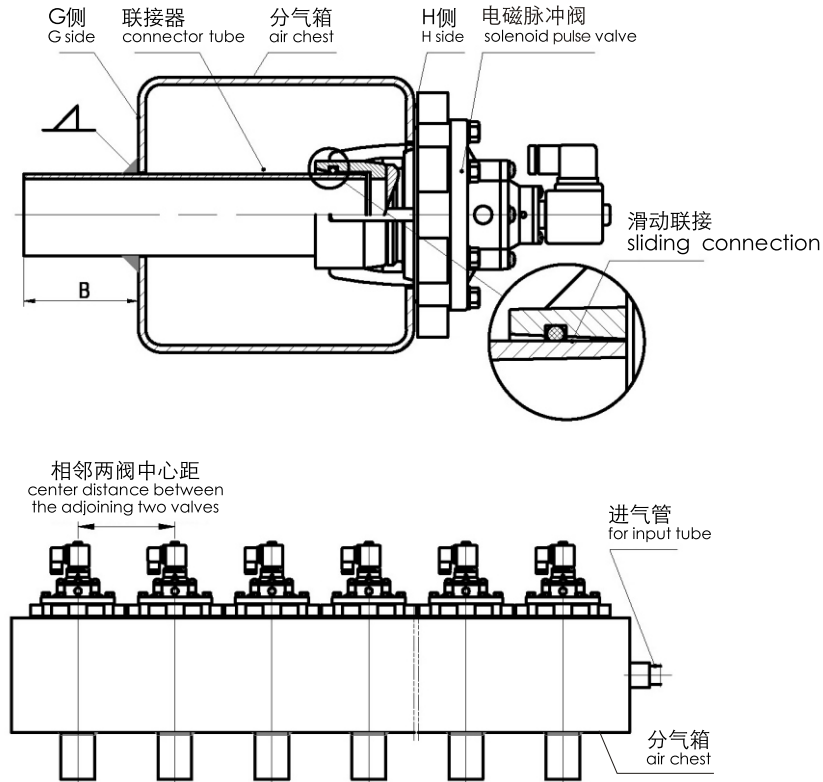
### 10.3 ZAJ-Y-1型安装方法 (3) ZAJ-Y-1 INSTALLATION(3)



单位unit: mm

规格 size	分气箱(方) air chest (square)				联接管 connector tube					喷吹管 内径 blowing tube internal diameter	连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		外径 external diameter	内径 internal diameter	螺纹 thread of screw	法兰 flange	长度 length			
			H	G								
25 (1")	180×180	Φ20	Φ60	Φ35	Φ34	Φ25	G1"	65	172+B	Φ25	螺纹 thread of screw	106
40 (1 1/2")	240×240	Φ25	Φ75	Φ49	Φ48	Φ40	G1 1/2"	80	210+B	Φ40	螺纹 thread of screw	122

### 10.3 ZAJ-Y-1型安装方法 (4) ZAJ-Y-1 INSTALLATION(4)

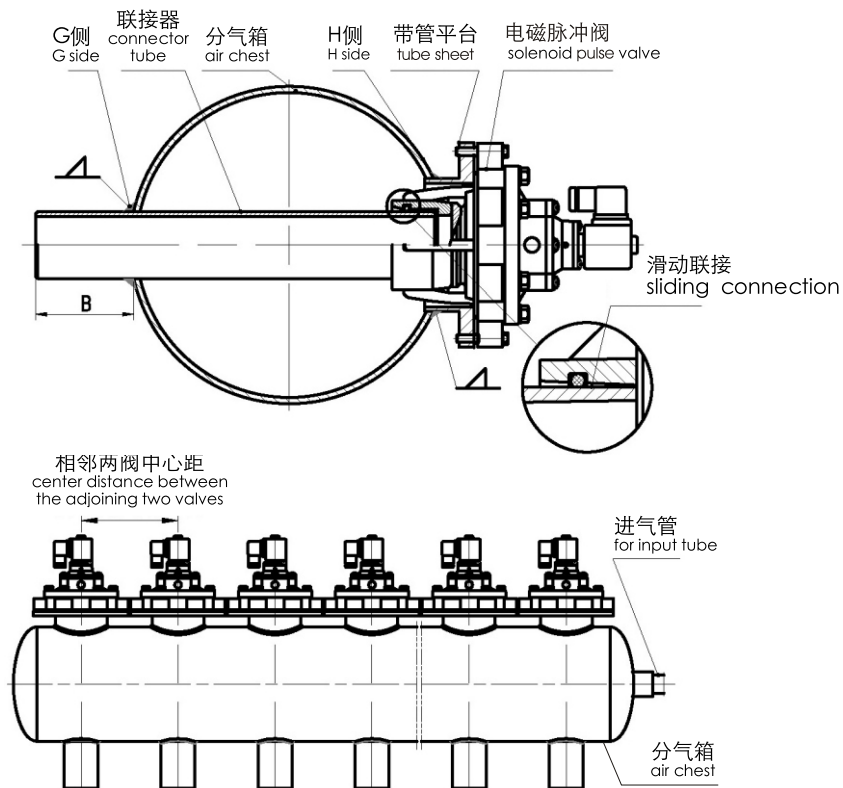


单位unit: mm

规格 size	分气箱(方) air chest (square)				联接管 connector tube			喷吹管 内径 blowing tube internal diameter	连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		外径 external diameter	内径 internal diameter	长度 length			
			H	G						
50 (2")	240×240	Φ40	Φ106	Φ61	Φ60	Φ50	200+B	Φ50	滑动 sliding	159
62 (2 1/2")	300×300	Φ50	Φ120	Φ76	Φ76	Φ62	238+B	Φ62	滑动 sliding	181
76(3")	300×300	Φ62	Φ134	Φ90	Φ89	Φ76	234+B	Φ76	滑动 sliding	193
89(3 1/2")	350×350	Φ76	Φ150	Φ103	Φ102	Φ89	280+B	Φ89	滑动 sliding	206
102(4")	400×400	Φ76	Φ164	Φ115	Φ114	Φ102	323+B	Φ102	滑动 sliding	219



### 10.3 ZAJ-Y-1型安装方法 (5) ZAJ-Y-1 INSTALLATION(5)



单位unit: mm

规格 size	分气箱(方) air chest (square)				带管平台 tube sheet		联接管 connector tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		内径 internal diameter	法兰 flange	外径 external diameter	内径 internal diameter	长度 length		
			H	G							
50 (2")	Φ219	Φ40	Φ118	Φ61	Φ106	Φ180	Φ60	Φ50	241+B	滑动 sliding	190
62 (2 1/2")	Φ273	Φ50	Φ130	Φ77	Φ120	Φ205	Φ76	Φ62	273+B	滑动 sliding	215
76(3")	Φ325	Φ62	Φ144	Φ90	Φ134	Φ219	Φ89	Φ76	321+B	滑动 sliding	229
89(3 1/2")	Φ351	Φ76	Φ158	Φ103	Φ150	Φ234	Φ102	Φ89	343+B	滑动 sliding	244
102(4")	Φ402	Φ76	Φ176	Φ115	Φ164	Φ249	Φ114	Φ102	387+B	滑动 sliding	259



## 11. DMF-ZAJ-Y-2型 DMF-ZAJ-Y-2 TYPE

产品编号 product's number : NO.4212200

DMF-ZAJ-Y-2系列产品照片  
DMF-ZAJ-Y-2 series products' photograph

DMF-ZAJ-Y-2型电磁脉冲阀采用柱塞作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-ZAJ-Y-2 electromagnetic valve employs the piston as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

本系列脉冲阀直接安装在分气箱（气包）上，称为淹没式阀（也称嵌入式阀，低压阀）。将阀体设计成正方形，其四角安装孔用螺栓与分气箱固定，输出口通过连接管延伸至分气箱外与除尘器喷吹管相连接。具有流通特性好，压力损失小，能在气源压力较低场合提供理想的清灰振动气流，适用于各种过滤单元的清灰，并缩小了相邻两个阀体之间的最小安装中心距离。满足大型袋式除尘器配置大口径脉冲阀，又不增加阀体安装面积的要求。

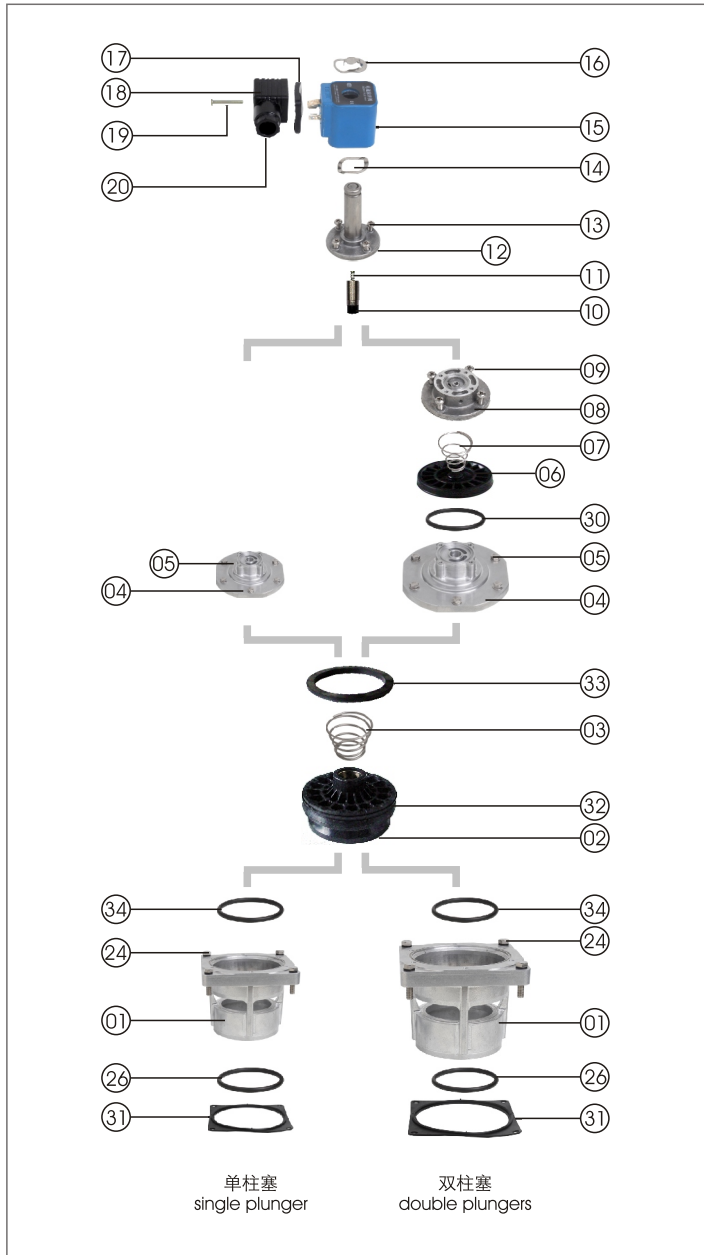
Valve of this series are directly installed on the air chest (air bag) which is called immersion valve (also called as injection valve or low pressure valve). The valve is designed in square shape whose mounting holes on the four corners could be used to fix with air chests through bolts. During the installation, one could connect the air blowing tube with the output port extension tube outside the air chest. The character of the valve is good flow, low pressure loss and could provide satisfactory cleaning vibrating flow in the low pressure environments. The valve is applicable for various kinds of filter equipments. The design of the valve decreases the minimum installation space between two valves. The compact spacing makes it possible for large bag dust collector to equip with large caliber pulse valve without compromising the installation space.

本系列电磁脉冲阀有：25mm(1")、40mm(1 1/2")、50mm(2")、62mm(2 1/2")、76mm(3")、89mm(3 1/2")、102mm(4") 七种规格。其中25mm(1")为单柱塞阀，40mm(1 1/2")~102mm(4")为双柱塞阀。脉冲阀输出口与连接管为滑动连接。

There are seven products specification in this series. They are 25mm(1"), 40mm(1 1/2"), 50mm(2"), 62mm(2 1/2"), 76mm(3"), 89mm(3 1/2"), 102mm(4"). Among which 25mm(1") is the single piston design, and from 40mm(1 1/2") to 102mm(4") are double piston design. The connection between pulse valve output and connection tube are accomplished in slide connection.



## 11.1 ZAJ-Y-2型分解图及明细表 ZAJ-Y-2 SEPARATE DIAGRAM AND INDEX LIST



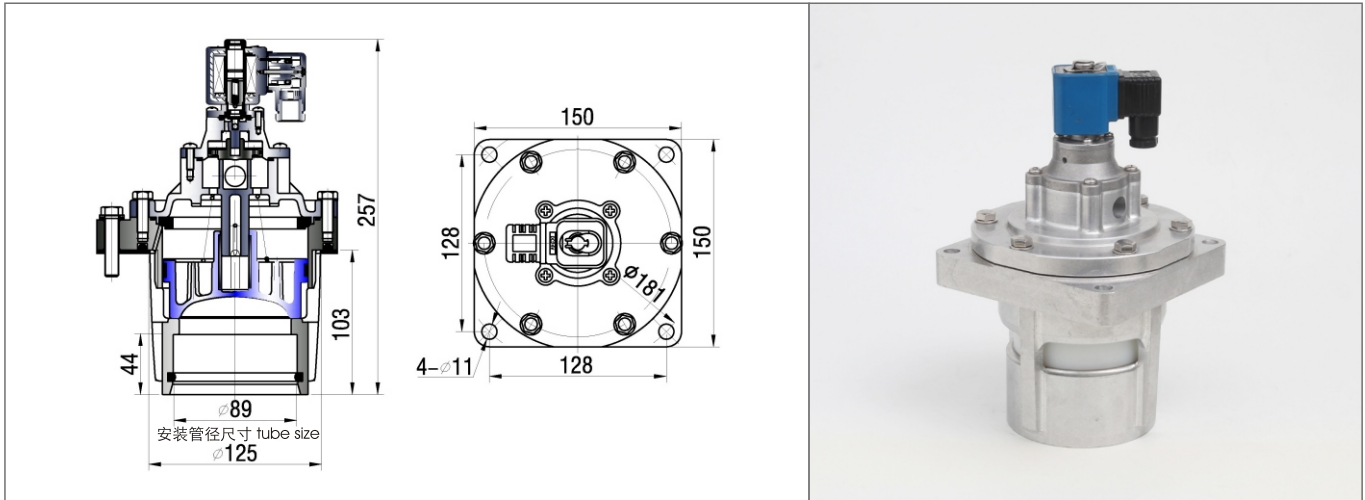
DMF-ZAJ-Y-2电磁脉冲阀分解图  
DMF-ZAJ-Y-2 separate diagram of valve

### 明细表 illustrative list

序号 Number	零件名称 components name	配置 disposition	
		单柱塞 single plunger	双柱塞 double plungers
01	阀体 valve body	1	1
02	柱塞 (主) plunger (primary)	1	1
03	弹簧 spring	1	1
04	阀盖 valve top	1	1
05	螺栓 bolt	5	6-8
06	柱塞 (副) plunger (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1
21-23	-----		
24	螺栓 bolt	4	4
25	-----		
26	O型密封圈 O sealing washer	1	1
27-29	-----		
30	O型密封圈 O sealing washer		1
31	密封圈 sealing washer	1	1
32	密封环 sealing ring	1	1
33	缓冲垫 buffer pad	1	1
34	O型密封圈 O sealing washer	1	1

11.2 ZAJ-Y-2型 76 (3")

产品编号 product's number : NO.4212205

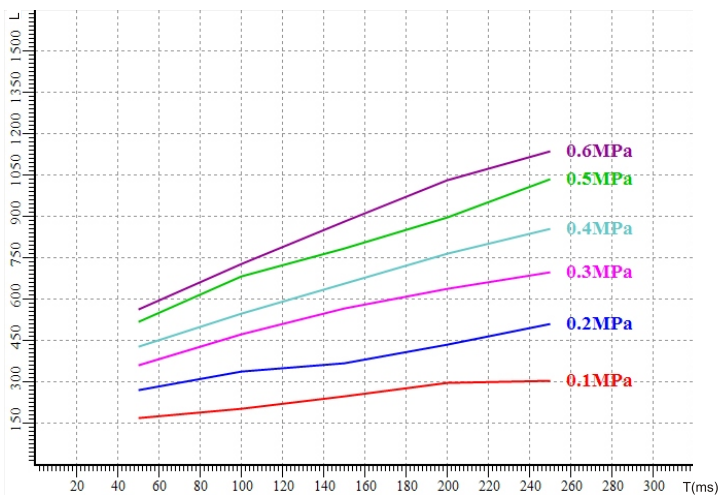


产品结构图 product structure diagram

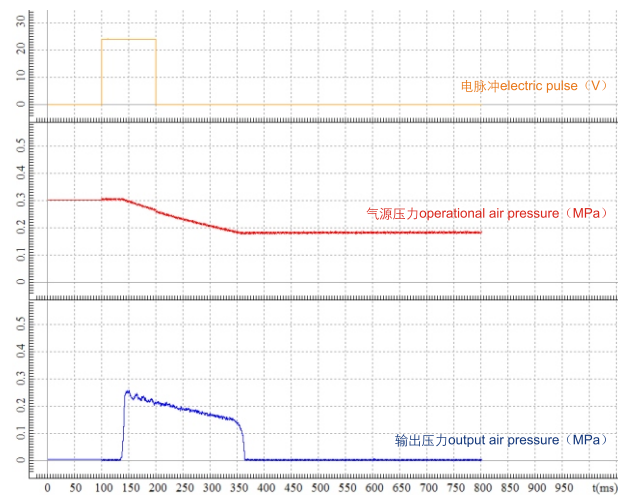
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	85
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	30
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	118
喷吹流量 blowing flow	L/Ms	2.09



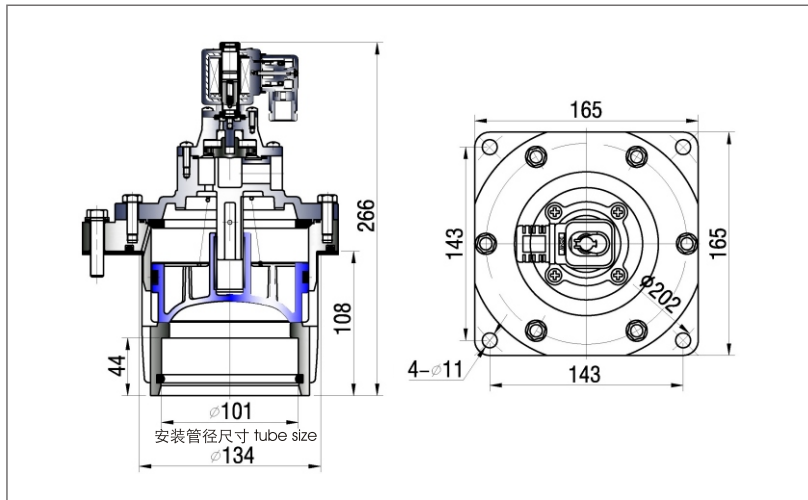
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

11.2 ZAJ-Y-2型 89 (3 1/2")

产品编号 product's number : NO.4212206

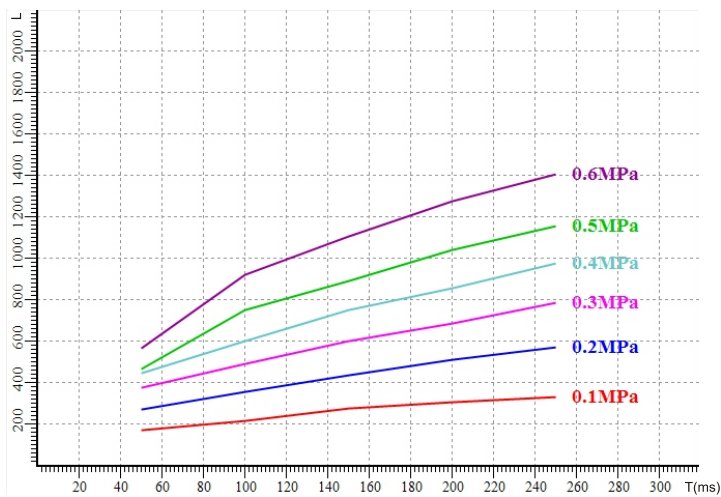


产品结构图 product structure diagram

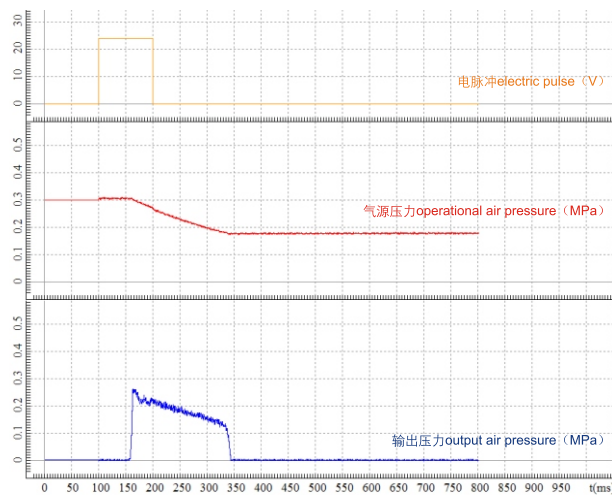
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	87
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	41
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	87
喷吹流量 blowing flow	L/Ms	2.71



喷吹气量曲线图 air flow curve

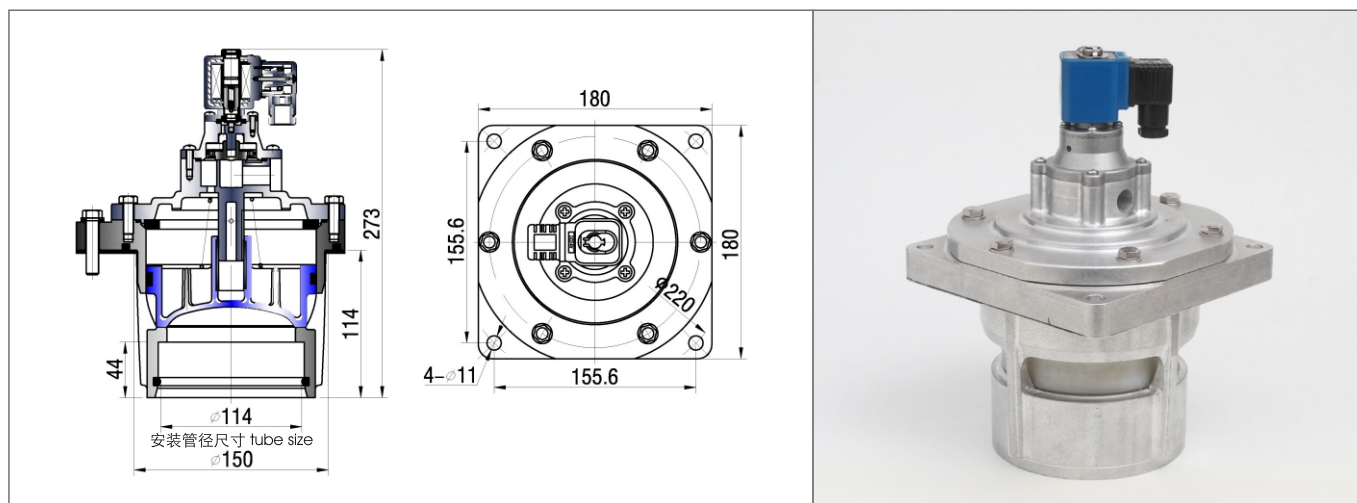


开关特性图 switch on/off character diagram



## 11.2 ZAJ-Y-2型 102 (4")

产品编号 product's number : NO.4212207

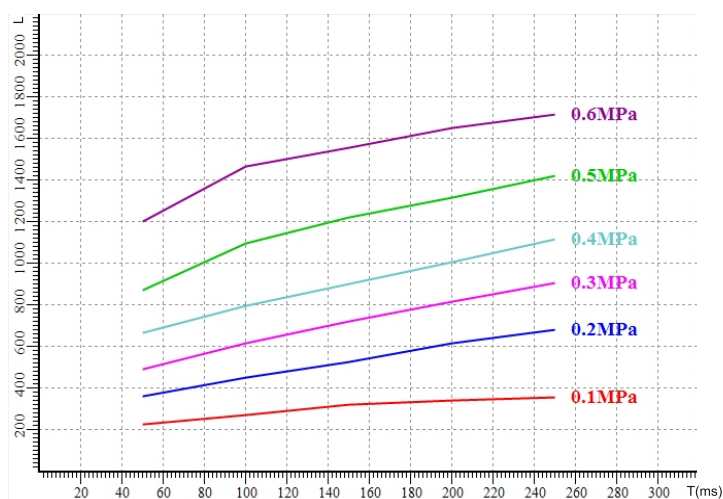


产品结构图 product structure diagram

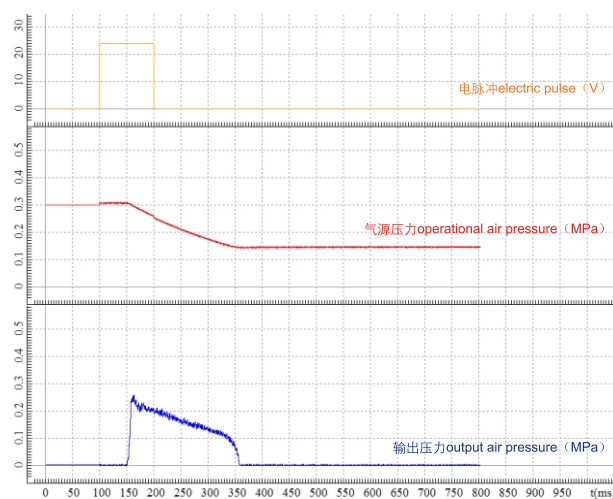
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	84
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	35
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	107
喷吹流量 blowing flow	L/Ms	3.17

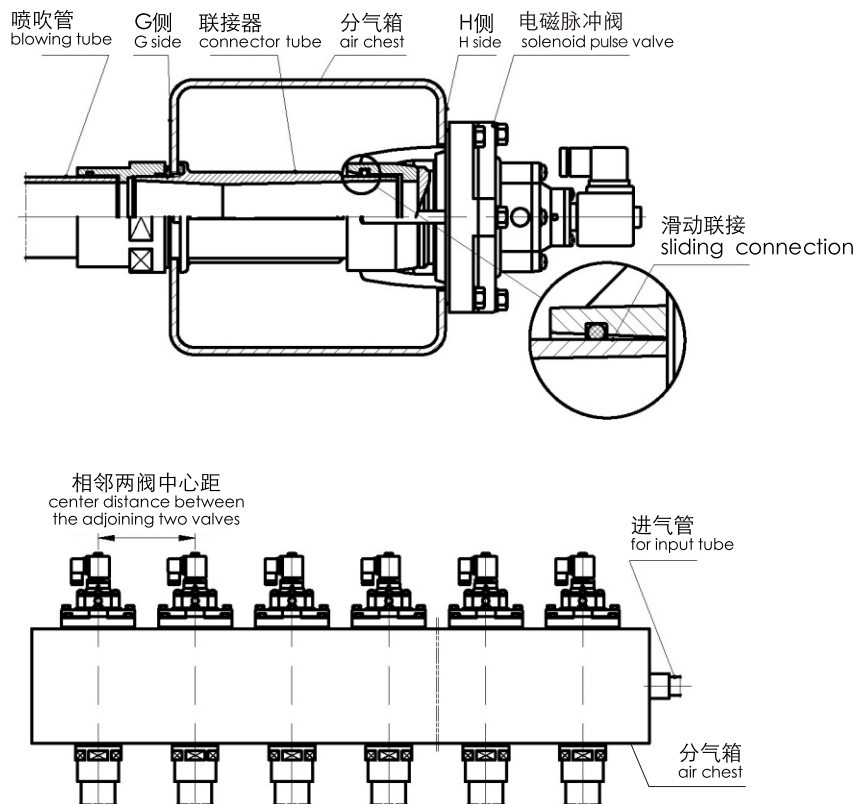


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

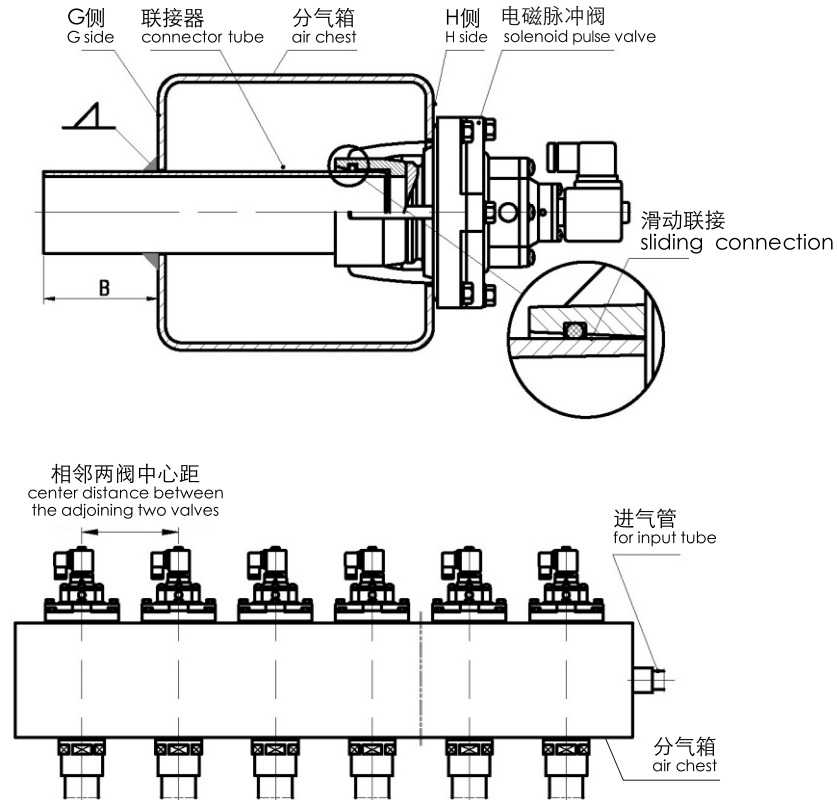
### 11.3 ZAJ-Y-2型安装方法 (1) ZAJ-Y-2 INSTALLATION(1)



单位unit: mm

规格 size	分气箱(方) air chest (square)				连接器 connector	喷吹管 blowing tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole			外径 external diameter	内径 internal diameter	插入长度 length to insert		
			H	G						
76 (3")	300×300	Φ62	Φ127	Φ91	FAP-B-2-76	Φ89	Φ76	40	滑动 sliding	160
89(3 1/2")	350×350	Φ76	Φ136	Φ103	FAP-B-2-89	Φ102	Φ89	40	滑动 sliding	175
102(4")	400×400	Φ76	Φ152	Φ116	FAP-B-2-102	Φ114	Φ102	40	滑动 sliding	190

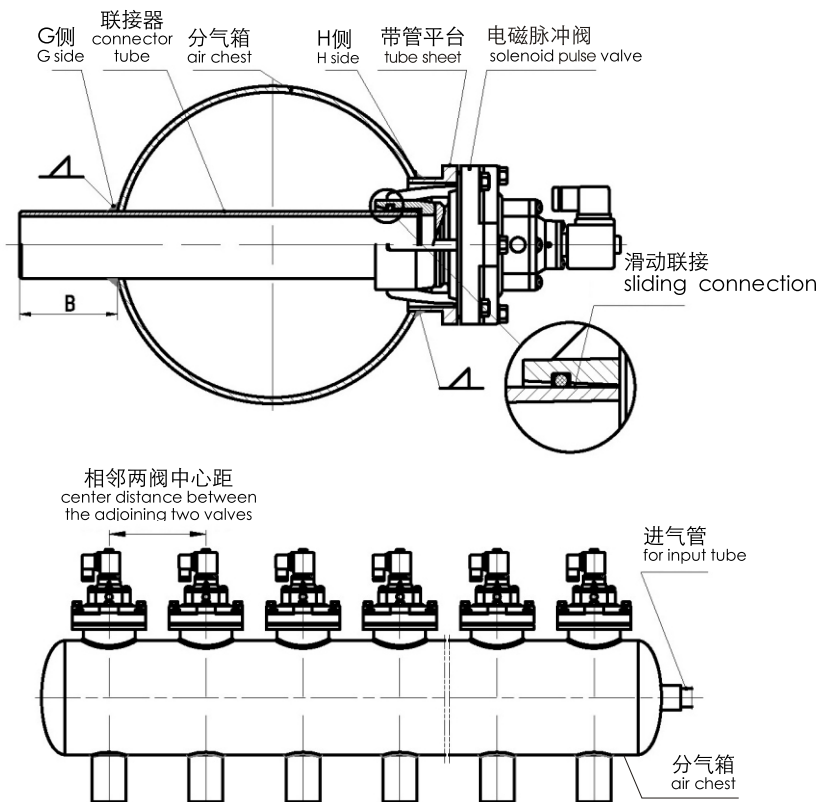
### 11.3 ZAJ-Y-2型安装方法 (2) ZAJ-Y-2 INSTALLATION(2)



单位unit: mm

规格 size	分气箱(方) air chest (square)			联接管 connector tube			喷吹管 内径 blowing tube internal diameter	连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves	
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		外径 external diameter	内径 internal diameter				长度 length
			H	G						
76(3")	300×300	Φ62	Φ127	Φ90	Φ89	Φ76	234+B	Φ76	滑动 sliding	160
89(3 1/2")	350×350	Φ76	Φ136	Φ103	Φ102	Φ89	280+B	Φ89	滑动 sliding	175
102(4")	400×400	Φ76	Φ152	Φ115	Φ114	Φ102	323+B	Φ102	滑动 sliding	190

### 11.3 ZAJ-Y-2型安装方法 (3) ZAJ-Y-2 INSTALLATION(3)



单位unit: mm

规格 size	分气箱(方) air chest (square)				带管平台 tube sheet		联接管 connector tube			连接方式 connection mode	相邻二阀中心距 center distance between the adjoining two valves
	外径 external diameter	进气管 内径 internal diameter for input tube	开孔尺寸 size for installation hole		内径 internal diameter	法兰 flange	外径 external diameter	内径 internal diameter	长度 length		
			H	G							
76(3")	Φ325	Φ62	Φ127	Φ90	Φ127	150X150	Φ89	Φ76	321+B	滑动 sliding	160
89(3 1/2")	Φ351	Φ76	Φ136	Φ103	Φ136	165X165	Φ102	Φ89	343+B	滑动 sliding	175
102(4")	Φ402	Φ76	Φ152	Φ115	Φ150	180X180	Φ114	Φ102	387+B	滑动 sliding	190

## 12. DMF-ZAJ-Y-5型 DMF-ZAJ-Y-5 TYPE

产品编号 product's number : NO.4212500

DMF-ZAJ-Y-5系列产品照片  
DMF-ZAJ-Y-5 series products' photograph

DMF-ZAJ-Y-5型电磁脉冲阀采用柱塞作为脉冲阀的开关元件。通过节流孔和放气孔改变脉冲阀前、后气室的压力，实现阀的开启和关闭。

The DMF-ZAJ-Y-5 electromagnetic valve employs the piston as the switch element of pulse valve. The opening and closing of the valve is accomplished by changing the air room pressure in the front and back through the orifice and release hole.

本系列脉冲阀直接安装在分气箱(气包)上，称为淹没式阀（也称嵌入式阀，低压阀）。阀体上四个安装通孔穿入螺栓与分气箱固定，连接管与分气箱另一端固定并与除尘器喷吹管相连接。当脉冲阀的柱塞处于开启状态时，分气箱内的压缩气体直接进入连接管喷吹，与其它形式的脉冲阀相比，具有最好的喷吹性能。适用于各种过滤单元的清灰。

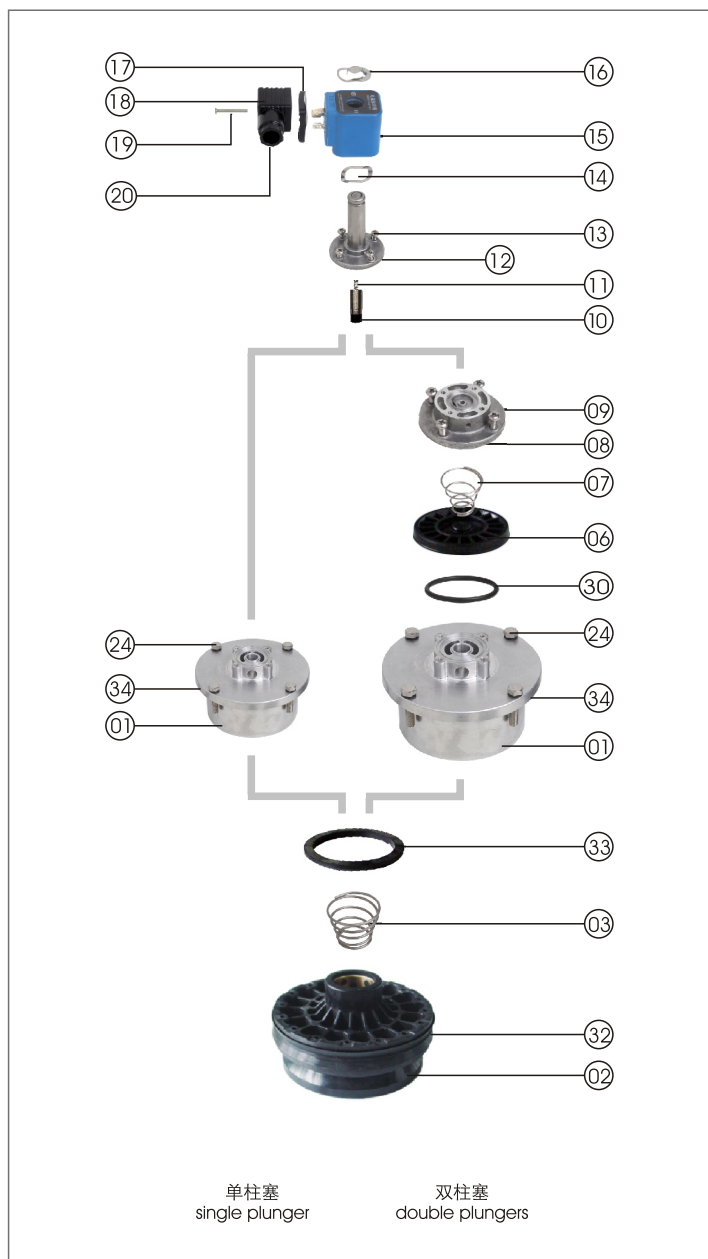
Valve of this series directly on the air chest (air bag) which is called immersion valve (also called as injection valve or low pressure valve). The valve holes in the four corners could be used the fix with air chests through bolts. During the installation, one could connect the dust blowing tube with the output port extension tube outside the air chest. The character of the valve is good flow, low pressure loss and applicable of various kinds of filter equipments.

本系列电磁脉冲阀有：25mm(1")、40mm(1 1/2")、50mm(2")、62mm(2 1/2")、76mm(3")、89mm(3 1/2")、102mm(4") 七种规格。其中25mm(1")为单柱塞阀，40mm(1 1/2")~102mm(4")为双柱塞阀。

There are seven products specification in this serious. They are 25mm(1"), 40mm(1 1/2"), 50mm(2"), 62mm(2 1/2"), 76mm(3"), 89mm(3 1/2"), 102mm(4"). 25mm(1") is the single piston design, and from 40mm(1 1/2") to 102mm(4") are double piston design.



## 12.1 ZAJ-Y-5型分解图及明细表 ZAJ-Y-5 SEPARATE DIAGRAM AND INDEX LIST



DMF-ZAJ-Y-5电磁脉冲阀分解图  
DMF-ZAJ-Y-5 separate diagram of valve

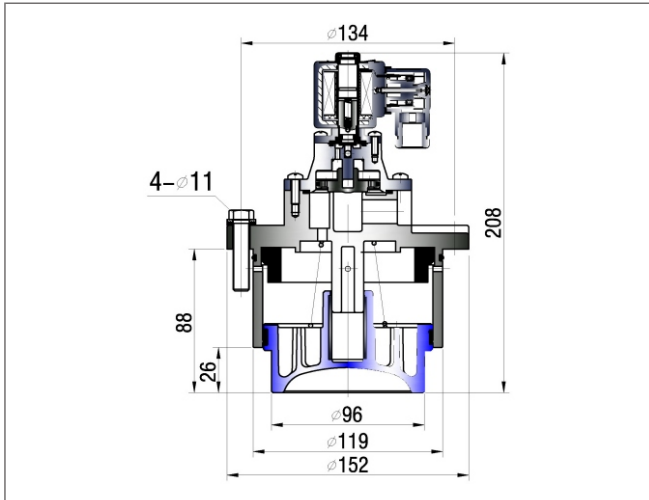
### 明细表 illustrative list

序号 Number	零件名称 components name	配置 disposition	
		单柱塞 single plunger	双柱塞 double plungers
01	阀体 valve body	1	1
02	柱塞 (主) plunger (primary)	1	1
03	弹簧 spring	1	1
04	-----		
05	-----		
06	柱塞 (副) plunger (assistant)		1
07	弹簧 spring		1
08	阀盖 valve top		1
09	螺钉 screw		4
10	衔铁 armature	1	1
11	弹簧 spring	1	1
12	先导头 guidance	1	1
13	螺钉 screw	4	4
14	波形垫圈 waved washer	1	1
15	电磁线圈 solenoid coil	1	1
16	卡簧 block spring	1	1
17	密封圈 sealing washer	1	1
18	接线盒 junction box	1	1
19	螺钉 screw	1	1
20	密封接头 sealing connector	1	1
21-23	-----		
24	螺栓 bolt	4	4
25-29	-----		
30	O型密封圈 O sealing washer	1	1
31	-----		
32	密封环 sealing ring	1	1
33	缓冲垫 buffer pad	1	1
34	O型密封圈 O sealing washer	1	1



## 12.2 ZAJ-Y-5型 76 (3")

产品编号 product's number : NO.4212505



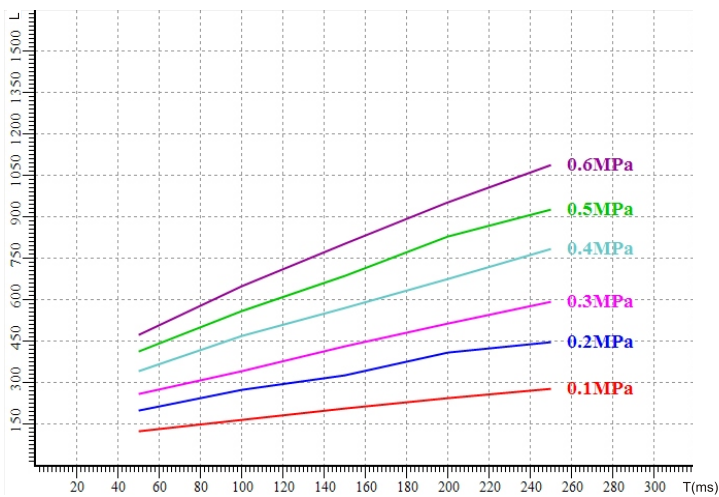
产品结构图 product structure diagram



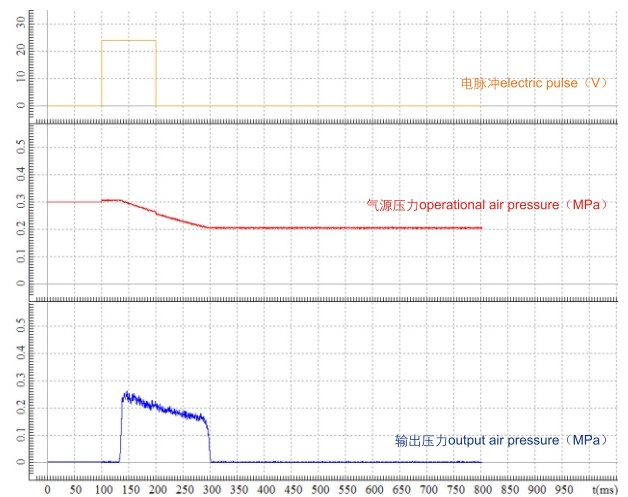
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	85
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	44
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	69
喷吹流量 blowing flow	L/Ms	2.17



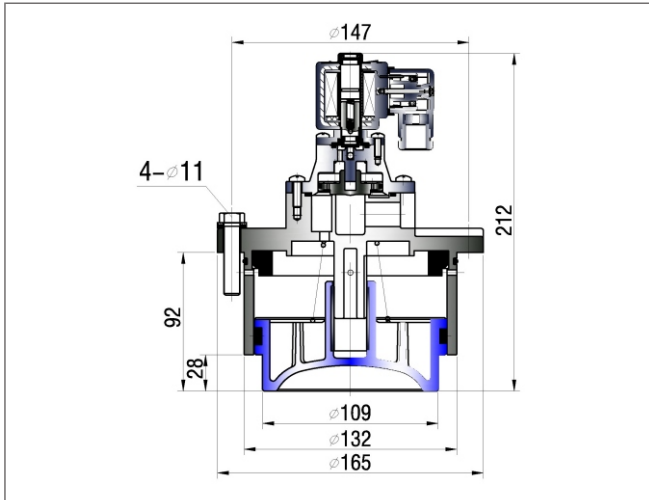
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

12.2 ZAJ-Y-5型 89 (31/2")

产品编号 product's number : NO.4212506



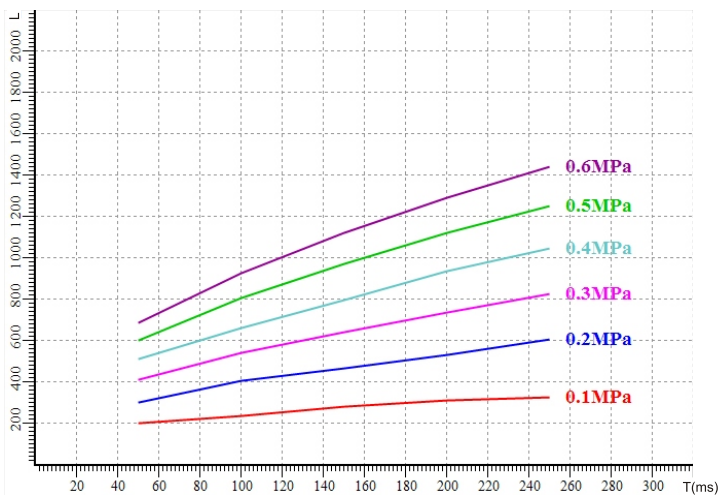
产品结构图 product structure diagram



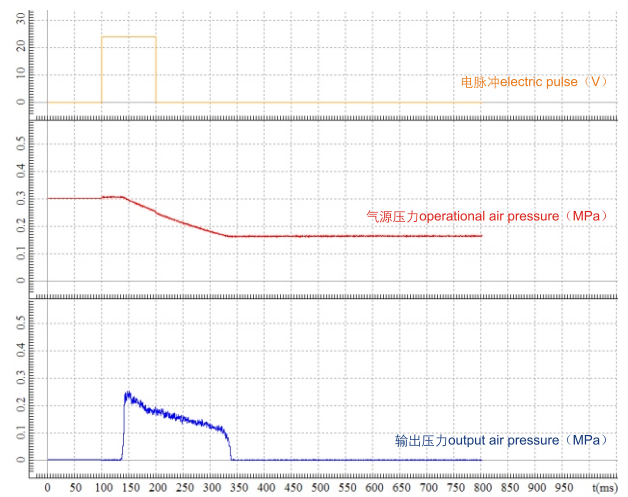
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	84
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	33
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	100
喷吹流量 blowing flow	L/Ms	2.80



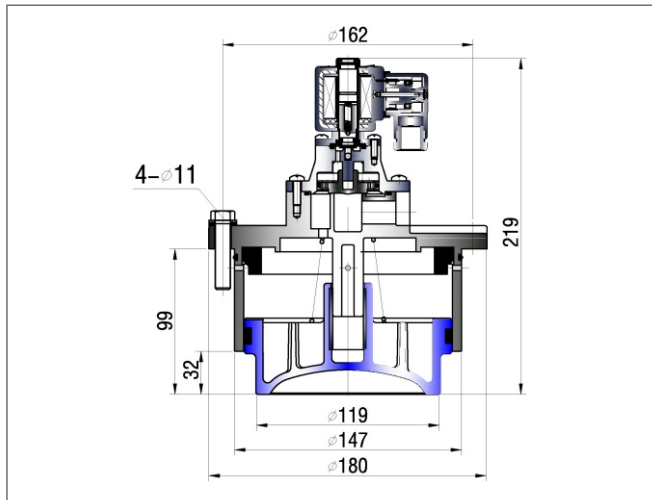
喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

12.2 ZAJ-Y-5型 102 (4")

产品编号 product's number : NO.4212507



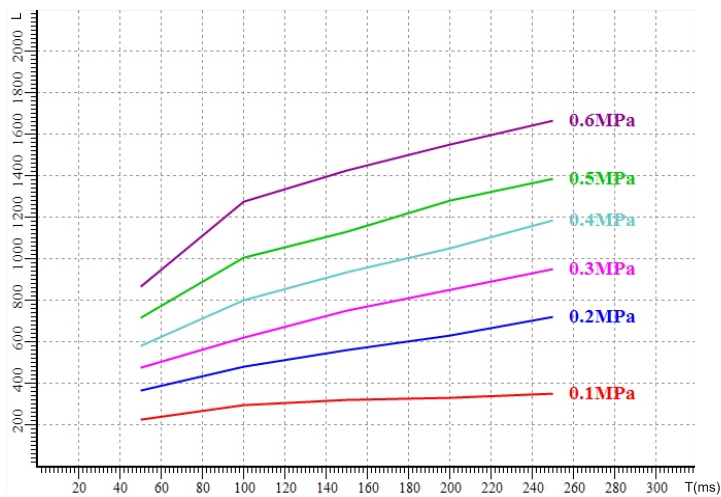
产品结构图 product structure diagram



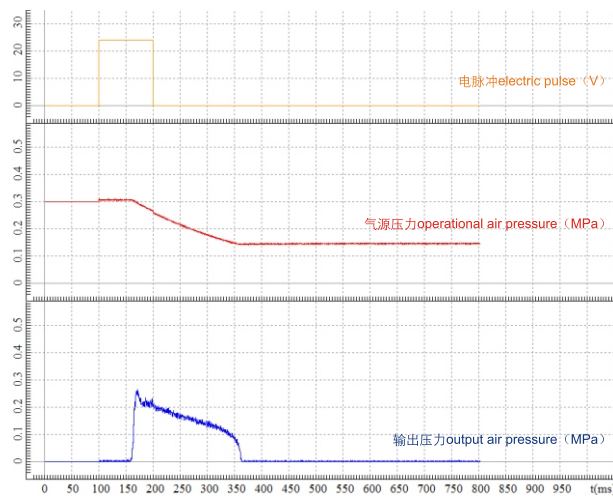
产品照片 product photograph

喷吹性能参数表 blowing tech-data table

项目 item	单位 unit	参数 tech-data index
输出输入压力比 pressure ratio for output/input	%	87
输出压力上升速率 rising rate of the outlet pressure	KPa/ms	28
气、电脉冲宽度差 duration difference between air and electric pulse	Ms	105
喷吹流量 blowing flow	L/Ms	3.26

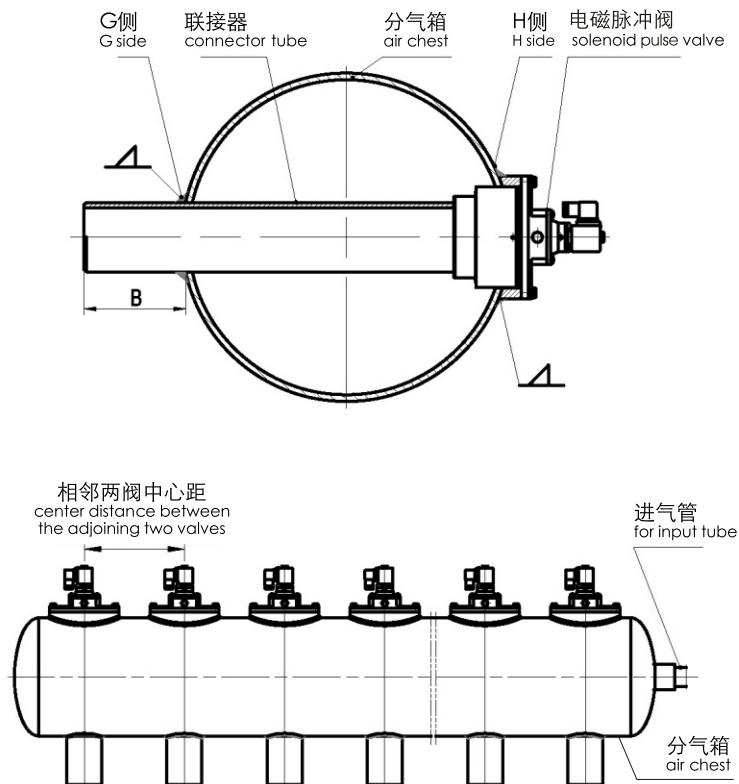


喷吹气量曲线图 air flow curve



开关特性图 switch on/off character diagram

### 12.3 ZAJ-Y-5型安装方法 ZAJ-Y-5 INSTALLATION



单位unit: mm

规格 size	分气箱(圆) air chest (round)				喷吹管 blowing tube			开度 opening distance	相邻二阀中心距 center distance between the adjoining two valves
	最小外径 Minimum external diameter	进气管 内径 internal diameter for input tube	平台 flat sheet		外径 external diameter	内径 internal diameter	长度 length		
			外形尺寸 external size	中心孔 central hole					
76 (3")	Φ325	Φ62	Φ152	Φ120	Φ89	Φ76	299+B	19	160
89(11 1/2")	Φ351	Φ76	Φ165	Φ133	Φ102	Φ89	321+B	22	175
102 (4")	Φ402	Φ76	Φ180	Φ148	Φ114	Φ102	365+B	26	190



## 13. 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

本产品手册“电磁脉冲阀系列型谱图”中共列出15个分支，93种规格产品。其中已批量生产的产品52种。手册中第2~12章已按产品型号分类排列叙述产品的主要性能。

This product manual outlines 15 categories and 93 specifications in the spectrum of electromagnetic pulse valve series. Chapter 2 to 12 in the manual describes the product main performance classied by product type.

为了方便用户对同一规格的不同型号产品进行比较（喷吹性能、外形尺寸、连接方式），手册中编制了本章内容。希望能给用户在比较、选用产品时带来方便。

This chapter is prepared to facilitate the comparison between same-specification products with different types (blowing performance, dimensions, installation methods). Hope it could bring convenience for users on selection and comparison of products.

各种型号产品一览表 index list of various product models

型号 model	DMF-MAJ										DMF-ZAJ					
	Z				Y					T	Z	Y				
	Q-1	1	2	3	Q-1	1	2	3	4	1	4	1	2	3	4	5
20 (3/4")	√	√	√	√	—	—	—	—	—	√	0	—	—	—	—	—
25(1")	—	√	√	√	—	√	√	0	0	√	0	√	0	0	0	0
40 (1 1/2")	—	√	√	√	—	√	√	0	0	√	0	√	0	0	0	0
50 (2")	—	√	—	—	—	√	√	0	0	√	0	√	0	0	0	0
62 (2 1/2")	—	√	—	—	—	√	√	0	0	√	0	√	0	0	0	0
76 (3")	—	√	—	—	√	√	√	0	0	—	√	√	√	0	0	√
89 (3 1/2")	—	√	—	—	—	√	√	0	0	—	√	√	√	0	0	√
102(4")	—	√	—	—	—	√	√	0	0	—	√	√	√	0	0	√
102(4")w	—	—	—	—	—	√	—	—	—	—	—	—	—	—	—	—

—：表示该型号无此规格的产品。

No standard product to meet specification.

√：表示该型号有此规格产品，并已批量生产。

Has standard product to meet the specification for detail information, please visit our company website.

0：表示该型号有此规格产品，请登陆我公司网站了解产品信息。

Has standard product to meet the specification, please visit our company website for detail information.

13.1 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

20(3/4")



项 目 item	型 号 model	DMF				
		MAJ				
		Z-1	Z-2	Z-3	T-1	Q-1(Z)
输出输入压力比 % pressure ratio for output/input %		56	55	74	56	63
上升速率 KPa/ms rising rate KPa/ms		37	74	47	37	39
气、电脉冲宽度差 ms duration difference between air and electric pulse ms		52	65	57	65	77
喷吹流量 L/ms blowing flow L/ms		0.13	0.10	0.21	0.13	0.12
最大外形尺寸 mm maximum size of external form mm		128X80X88	168X80X118	180X92X112	96X96X135	192X90X140
重量 Kg weight kg		0.65	0.9	1.2	0.8	0.8
相邻中心距 mm near central distance mm		90	90	102	106	100
接口 interface		内螺纹 inter thread	双闷头 double stagrants	法兰/插入 flange/Insert	内螺纹 inter thread	内螺纹/光纤 inter thread/pole
详见 visit detailed		第12页 Page 12	第24页 Page 24	第31页 Page 31	第66页 Page 66	第73页 Page 73

13.2 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

25 (1")



项 目 item	型 号 model	DMF						ZAJ
		MAJ						
		Z-1	Z-2	Z-3	Y-1	Y-2	T-1	
输出输入压力比 % pressure ratio for output/input %		64	71	76	83	80	69	91
上升速率 KPa/ms rising rate KPa/ms		40	39	41	30	30	57	63
气、电脉冲宽度差 ms duration difference between air and electric pulse ms		64	61	71	99	65	83	100
喷吹流量 L/ms blowing flow L/ms		0.25	0.27	0.45	0.16	0.21	0.29	0.18
最大外形尺寸 mm maximum size of external form mm		136X96X108	192X96X140	252X112X140	Φ96X140	96X96X143	127X112X180	Φ96X138
重量 Kg weight kg		0.8	1.25	1.5	0.8	0.8	1.4	1
相邻中心距 mm near central distance mm		106	106	122	106	106	122	106
接口 interface		内螺纹 inter thread	双闷头 double stagrants	法兰/插入 flange/insert	螺纹 thread	滑动 sliding	内螺纹 inter thread	螺纹 thread
详见 visit detailed		第13页 Page 13	第25页 Page 25	第32页 Page 32	第39页 Page 39	第54页 Page 54	第67页 Page 67	第83页 Page 83

13.3 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

40 (1 1/2")



项目 item	型号 model	DMF						ZAJ
		MAJ						
		Z-1	Z-2	Z-3	Y-1	Y-2	T-1	
输出输入压力比 % pressure ratio for output/input %		61	58	69	79	71	58	84
上升速率 KPa/ms rising rate KPa/ms		65	64	68	39	46	64	47
气、电脉冲宽度差 ms duration difference between air and electric pulse ms		57	49	69	82	53	75	116
喷吹流量 L/ms blowing flow L/ms		0.69	0.82	0.87	0.41	0.48	0.68	0.54
最大外形尺寸 mm maximum size of external form mm		184X112X131	242X112X166	278X127X158	Φ112X184	112X112X180	127X127X200	Φ112X195
重量 Kg weight kg		1.4	2	2	1.25	1.3	1.75	1.4
相邻中心距 mm near central distance mm		122	122	137	122	122	137	106
接口 interface		内螺纹 inter thread	双闷头 double stagrants	法兰/插入 flange/insert	螺纹 thread	滑动 sliding	内螺纹 inter thread	螺纹 thread
详见 visit detailed		第14页 Page 14	第26页 Page 26	第33页 Page 33	第40页 Page 40	第55页 Page 55	第68页 Page 68	第84页 Page 84

13.4 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

50 (2")



项 目 item	型 号 model	DMF				
		MAJ				ZAJ
		Z-1	Y-1	Y-2	T-1	Y-1
输出输入压力比 % pressure ratio for output/input %		56	71	86	57	95
上升速率 KPa/ms rising rate KPa/ms		35	31	38	45	50
气、电脉冲宽度差 ms duration difference between air and electric pulse ms		104	73	66	81	84
喷吹流量 L/ms blowing flow L/ms		1.20	0.69	0.75	1.25	0.82
最大外形尺寸 mm maximum size of external form mm		206X160X180	Φ202X188	155X155X193	160X160X220	Φ180X216
重量 Kg weight kg		2.9	2.45	2.5	2.8	2.6
相邻中心距 mm near central distance mm		170	188	165	170	160
接口 interface		内螺纹 inter thread	滑动 sliding	滑动 sliding	内螺纹 inter thread	滑动 sliding
详见 visit detailed		第15页 Page 15	第41页 Page 41	第56页 Page 56	第69页 Page 69	第85页 Page 85



13.5 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

62 (21/2")



项 目 item	型 号 model	DMF				
		MAJ				ZAJ
		Z-1	Y-1	Y-2	T-1	Y-1
输出输入压力比 % pressure ratio for output/input %		57	86	90	63	95
上升速率 KPa/ms rising rate KPa/ms		22	22	25	31	25
气、电脉冲宽度差 ms duration difference between air and electric pulse ms		100	93	81	118	114
喷吹流量 L/ms blowing flow L/ms		2.17	1.23	1.30	1.84	1.38
最大外形尺寸 mm maximum size of external form mm		226X188X204	Φ237X196	170X170X197	200X200X243	Φ205X250
重量 Kg weight kg		3.5	3	3.2	4.2	3.5
相邻中心距 mm near central distance mm		198	210	180	210	180
接口 interface		内螺纹 inter thread	滑动 sliding	滑动 sliding	内螺纹 inter thread	滑动 sliding
详见 visit detailed		第16页 Page 16	第42页 Page 42	第57页 Page 57	第70页 Page 708	第86页 Page 86

13.6 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

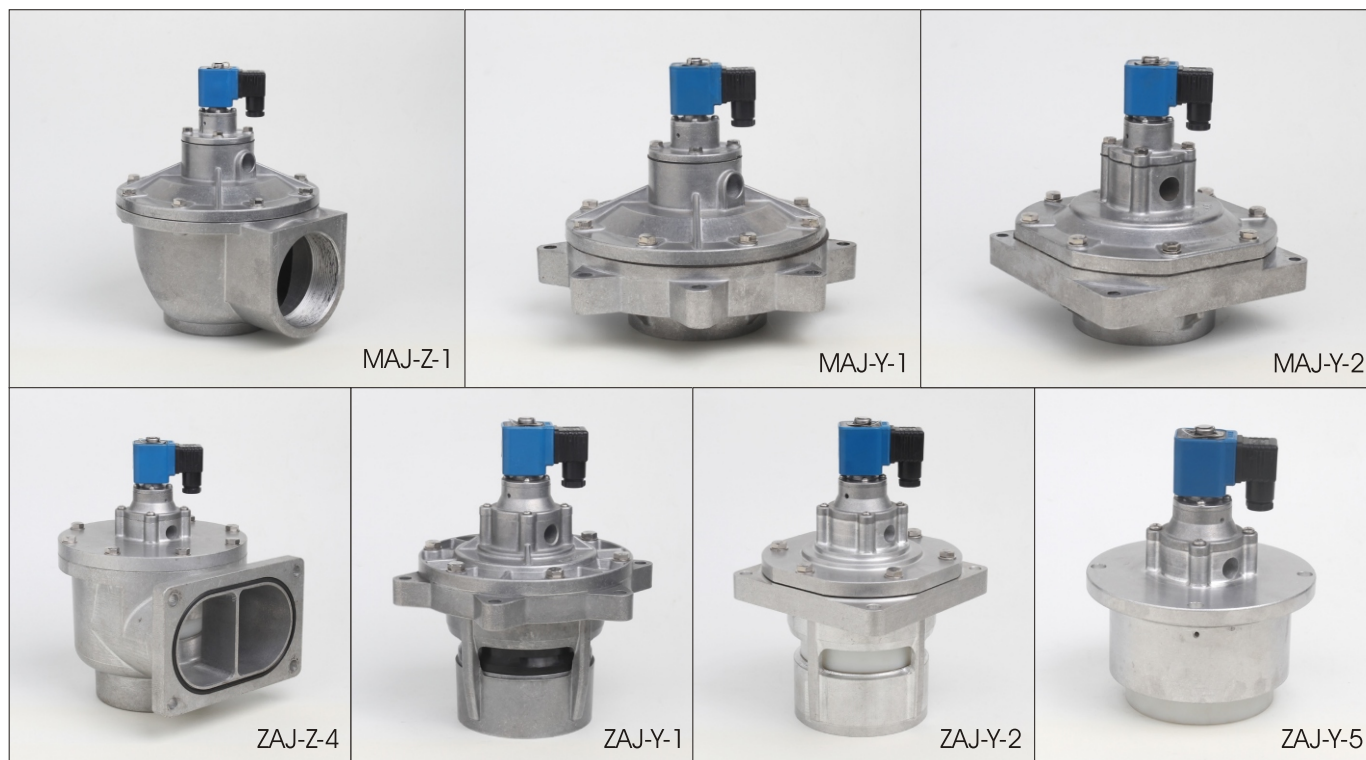
76 (3")



项 目 item	型 号 model	DMF							
		MAJ				ZAJ			
		Z-1	Y-1	Y-2	Q-1(Y)	Z-4	Y-1	Y-2	Y-5
输出输入压力比 % pressure ratio for output/input %		61	82	85	85	79	83	85	85
上升速率 KPa/ms rising rate KPa/ms		14	13	16	15	72	37	30	44
气、电脉冲宽度差 ms duration difference between air and electric pulse ms		112	104	59	116	114	81	118	69
喷吹流量 L/ms blowing flow L/ms		2.79	1.79	1.97	1.93	3.53	2.15	2.09	2.17
最大外形尺寸 mm maximum size of external form mm		254X200X220	Φ250X200	185X185X200	Φ190X200X220	277X185X203	Φ219X254	150X150X260	Φ152X185
重量 Kg weight kg		4.3	3.4	3.5	2.9	4.2	3.8	3.4	1.8
相邻中心距 mm near central distance mm		210	230	195	200	195	195	160	162
接口 interface		内螺纹 inter thread	滑动 sliding	滑动 sliding	滑动 sliding	法兰/插入 flange/insert	滑动 sliding	滑动 sliding	—
详见 visit detailed		第17页 Page 17	第43页 Page 43	第58页 Page 58	第74页 Page 74	第77页 Page 77	第87页 Page 87	第97页 Page 97	第105页 Page 105

13.7 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

89 (31/2")



项 目 item	型 号 model	DMF						
		MAJ			ZAJ			
		Z-1	Y-1	Y-2	Z-4	Y-1	Y-2	Y-5
输出输入压力比 % pressure ratio for output/input %		59	85	85	78	87	87	84
上升速率 KPa/ms rising rate KPa/ms		25	18	14	77	35	41	33
气、电脉冲宽度差 ms duration difference between air and electric pulse ms		93	115	80	94	101	87	100
喷吹流量 L/ms blowing flow L/ms		3.77	2.42	2.45	4.40	2.67	2.71	2.80
最大外形尺寸 mm maximum size of external form mm		291X225X248	Φ278X231	200X200X228	284X200X225	Φ234X263	165X165X269	Φ165X187
重量 Kg weight kg		6	4.8	5	5.8	5	5.2	2.2
相邻中心距 mm near central distance mm		235	260	210	210	210	175	175
接口 interface		内螺纹 inter thread	滑动 sliding	滑动 sliding	法兰/插入 flange/insert	滑动 sliding	滑动 sliding	—
详见 visit detailed		第18页 Page 18	第44页 Page 44	第59页 Page 59	第78页 Page 78	第88页 Page 88	第98页 Page 98	第106页 Page 106

13.8 各种型号产品一览表 INDEX LIST OF VARIOUS PRODUCT MODELS

102 (4")



项目 item	型号 model	DMF							
		MAJ				ZAJ			
		Z-1	Y-1	Y-1(W)	Y-2	Z-4	Y-1	Y-2	Y-5
输出输入压力比 % pressure ratio for output/input %		56	83	81	83	83	85	84	87
上升速率 KPa/ms rising rate KPa/ms		16	16	13	15	65	28	35	28
气、电脉冲宽度差 ms duration difference between air and electric pulse ms		121	120	102	89	114	106	107	105
喷吹流量 L/ms blowing flow L/ms		4.29	2.76	2.41	2.96	5.34	3.10	3.17	3.26
最大外形尺寸 mm maximum size of external form mm		308X250X275	Φ303X233	Φ250X210	215X215X231	304X215X243	Φ250X270	180X180X276	Φ180X190
重量 Kg weight kg		7.5	5.6	3.4	5.6	7	5.6	5.8	3
相邻中心距 mm near central distance mm		260	210	230	225	225	230	190	190
接口 interface		内螺纹 inter thread	滑动 sliding	滑动 sliding	滑动 sliding	法兰/插入 flange/insert	滑动 sliding	滑动 sliding	—
详见 visit detailed		第19页 Page 19	第45页 Page 45	第46页 Page 46	第60页 Page 60	第79页 Page 79	第89页 Page 89	第99页 Page 99	第107页 Page 107



## 1 工作原理 OPERATIONAL PRINCIPLE

电磁脉冲阀工作原理如图所示：主膜片或主柱塞（阀片）①把电磁脉冲阀的大气腔分为前气室(A)②和后气室(A)③，副膜片或副柱塞（小阀片）④把小气腔分为前气室(B)⑤和后气室(B)⑥，当接通压缩气体气源时，压缩气体通过节流孔(A)⑦和(B)⑧分别进入后气室(A)③和后气室(B)⑥，由于二个放气孔(B)⑪、(A)⑫都被封堵。后气室(A)③的压力使膜片或柱塞（阀片）①紧贴输出口⑨，电磁脉冲阀处于“关闭”状态。

The operational principle of electromagnetic pulse valve is as below diagram: Through diaphragm or valve flap ① divide the air room as front air chamber(A)② and back air chamber(A)③, assistant diaphragms or valve flaps with smaller size ④ are used to divide the small air room as front air chamber(B)⑤ and back air chamber(B)⑥. The inputted compressed gas will pass through the orifices(A)⑦ and (B)⑧ to the back air chamber(A)③ and (B)⑥ respectively. Two air vent holes(B)⑪、(A)⑫ are both blocked. The pressure of back air chamber (A)③ will push the diaphragm or valve flap ① to appress the output port⑨. Thus the electromagnetics pulse valve is in the status of "closed".

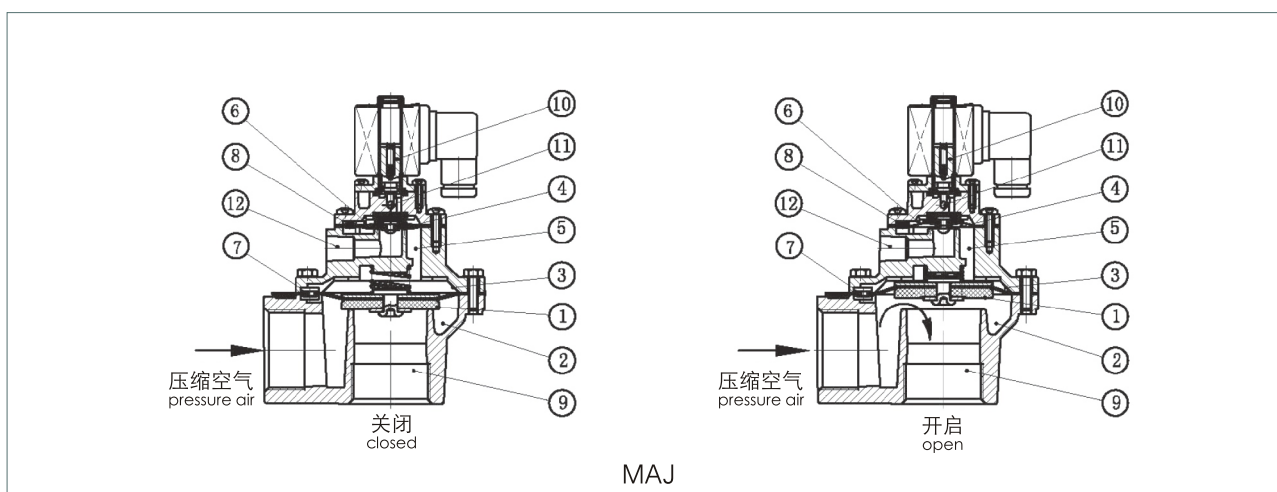
冲喷吹控制仪的电信号使电磁脉冲阀动铁芯⑩移动，放气孔(B)⑪被打开，后气室(B)⑥迅速失压，副膜片或副柱塞（阀片）④后移，放气孔(A)⑫被打开，后气室(A)③迅速失压，前气室(A)②的压力使主膜片或主柱塞（阀片）①后移，压缩气体通过输出口⑨喷吹，电磁脉冲阀处于“开启”状态。

The electrical signal of pulse blowing controller moves the valve iron core⑩. If the air vent hole(B)⑪ is opened, it will cause the rapid pressure loss of back air chamber (B)⑥, thus small diaphragm or valve flap ④ is moving backward, the air vent hole(A)⑫ is then opened causing the rapid pressure loss of back air chamber (A)③. The pressure of front air chamber(A)② will push the diaphragm or valve flap① to move backward and the compressed gas blows through output port⑨, the valve then is in the status of "open".

脉冲喷吹控制仪的电信号消失，电磁脉冲阀动铁芯⑩复位，放气孔(B)⑪封堵，副膜片或副柱塞（阀片）④前移，放气孔(A)⑫被封堵，后气室(A)③压力升高，使主膜片或主柱塞（阀片）①紧贴输出口⑨，电磁脉冲阀处于“关闭”状态。

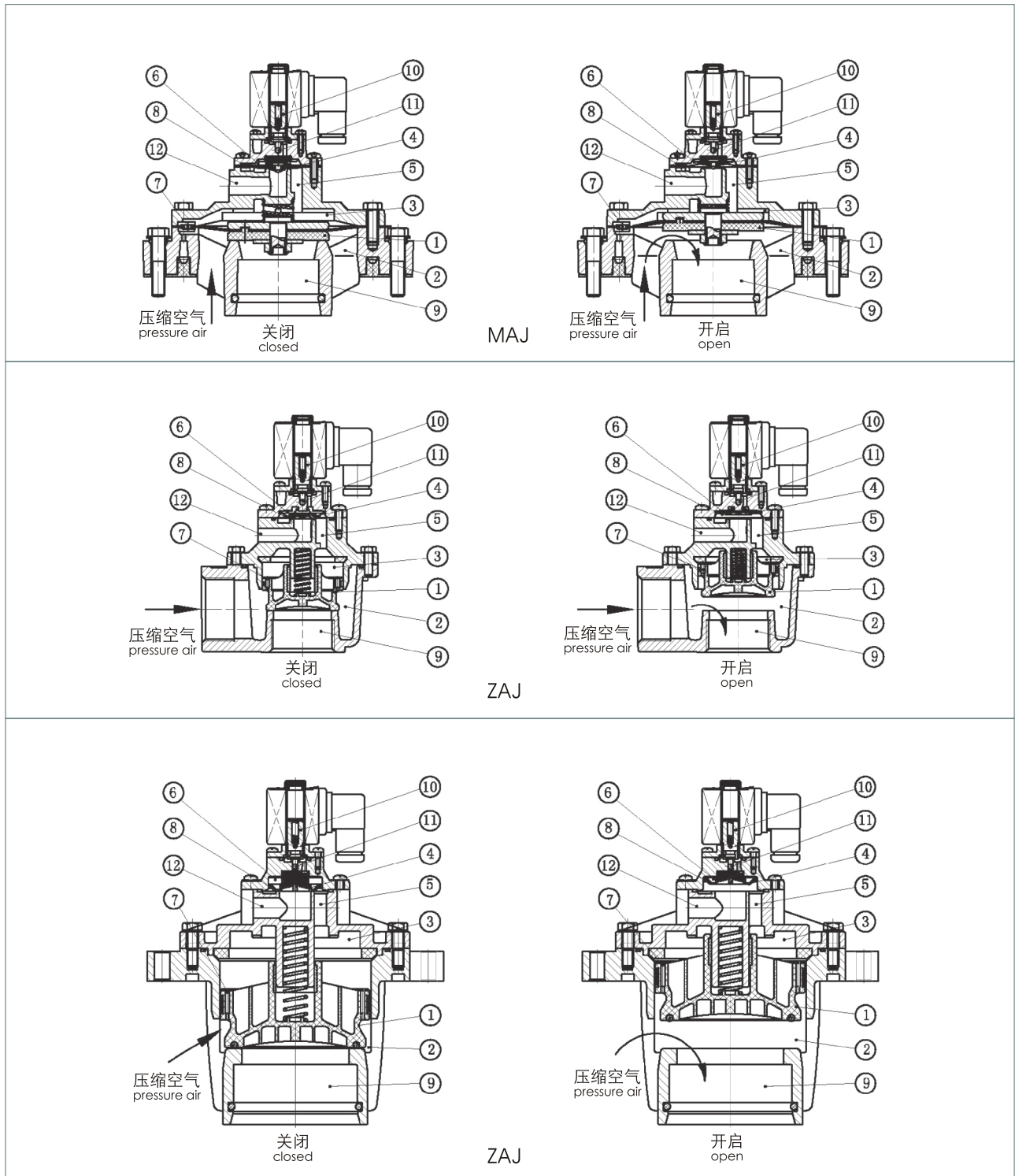
When the electric signal disappeared, the valve iron core⑩ of the electromagnetic valve restored. The air vent hole(B)⑪ is then blocked making the small assistant diaphragm or valve flap④ to move ahead. The air vent hole(A)⑫ is then blocked causing the pressure rise of back air chamber(A)③. The principal diaphragm or valve flap① is then appressed to the output port⑨ and the electromagnetic pulse valve is in the status of "closed".

电磁脉冲阀工作原理图 operating principle diagram of electromagnetic pulse valve





# 1 工作原理 OPERATIONAL PRINCIPLE



## 2 分类 CLASSIFICATION

### 1、按脉冲阀的开关元件分类 classified by switching element of pulse valve

#### 1.1、膜片阀 diaphragm valve

用橡胶膜片或其它弹性体膜片作为脉冲阀的开关元件。通过前气室和后气室的压差变化使膜片变形而产生位移，实现阀的开启与关闭。

The rubber diaphragm or other elastomeric diaphragms are used as the switching component of pulse valve. The opening and closing of the valve is accomplished through the shifting of deformed diaphragm caused by difference between the front and back air chamber.

#### 1.2、柱塞阀 piston valve

用金属或高分子聚合物制成的柱塞（阀片、阀板、活塞）作为脉冲阀的开关元件，通过前气室和后气室的压差变化，使柱塞（阀片、阀板）在气腔内移动，实现阀的开启与关闭。

The valve piston (flap plate plunger) made by metal or high molecular polymer other are used as the switching component of pulse valve. The opening and closing of the valve is accomplished through the shifting of piston caused by difference between the front and back air chamber.

### 2、按脉冲阀的组装方式分类 classified by assembly mode of pulse valve

#### 2.1、组合式 component style

电磁先导阀与脉冲阀组装成一体。

electromagnetic pilot valve and pulse valve are assembled together.

#### 2.2、分离式 separation style

电磁先导阀与脉冲阀分开安置。

electromagnetic pilot valve and pulse valve are separately assembled.

## 2 分类 CLASSIFICATION

### 3、按脉冲阀的输入、输出口位置分类 classified by the position of input and output port of pulse valve

#### 3.1、直角式 right angle style

气流输入口与输出口之间夹角为 $90^\circ$ ，其输入口与分气箱上的短管或平台（法兰）相连接，输出口与除尘器喷吹管相连接。

The angle between the gas input and output port is  $90^\circ$ . The input port is connected with the air chest and the output port is connected with the blowing pipe of dust filter.

#### 3.2、淹没式 immersion style

直接安装在分气箱上，其输入口淹没在分气箱内，输出口通过联接管延伸至分气箱外与除尘器喷吹管相连接。

Directly installed on the air chest whose input port submerged in the air chest and the output port connected with the filter blowing pipe through connecting tube.

#### 3.3、直通式 Straight through style

气流输入口与输出口中心为同一轴线，其输入口与分气箱上的短管相连接，输出口与除尘器喷吹管相连接。

The center of the input and output port is in the same axis. The input port is connected with the air chest and the output port is connected with the blowing pipe of dust filter.

### 4、按脉冲阀的接口形式分类 classified by the interface of pulse valve

#### 4.1、内螺纹接口 inner thread interface

阀的输入、输出口为内螺纹。

The input and output port of the valve is of inner thread.

#### 4.2、外螺纹接口 outer thread interface

阀的输入、输出口为外螺纹并配有压紧螺帽。

The input and output port of the valve is of outer thread which is equipped with compression nut.

#### 4.3、法兰接口 flange interface

阀的输入口为法兰连接，输出口为插入式或外螺纹。

The input port of the valve is of flange interface yet the output port is of plug-in or outer thread.

#### 4.4、嵌入式接口 embedded interface

阀体直接与分气箱外壁连接并嵌入箱体内，其输出口为螺纹或滑动接口。

the valve is directly connected with the air chest outwall which is embedded in the box body. Its output port is of screw thread or sliding interface

### 3 定义 DEFINITION

#### 1、脉冲阀 pulse valve

受电磁或气动等先导阀的控制，能在瞬间启闭压缩气体，产生气脉冲的阀门。

Controlled by electromagnetic or pneumatic pilot valve, the pulse valve can generate gas pulse by instant opening and closing compressed gas.

#### 2、电磁脉冲阀 electromagnetic pulse valve

电磁先导阀与脉冲阀组合在一起的阀门。

Valve combined of electromagnetic pilot valve and pulse valve.

#### 3、电信号 electric signal

符合受控电磁脉冲阀输入标准值的电源信号，也称电脉冲信号。

Power signal which is aligned with input standard of controlled electromagnetic pulse valve is also known as electric pulse signal.

#### 4、电信号宽度 duration of electric signal

电源信号的持续时间，也称电脉冲宽度。

the duration of electric pulse signal.

#### 5、输出输入压力比 pressure ratio for output/input

脉冲阀喷吹时输出口产生的峰值压力与脉冲阀输入口气源压力之比，用%表示。

The pressure ratio between the gas peak pressure of valve output and valve input gas pressure is in %.

#### 6、输出压力上升速率 rising rate of the outlet pressure

脉冲阀喷吹时，输出口峰值压力与从0上升至峰值所需时间的比值，单位为千帕每毫秒 (kPa/ms)。

When the pulse valve blows, the ratio of output peak pressure and time required from 0 to peak will be in kilopa every millisecond (kPa/ms).

#### 7、阀体阻力 valve resistance

脉冲阀喷吹时，其输入气源压力与输出口峰值压力之差，单位为兆帕 (MPa)。

When the pulse valve blows, the difference between the input gas pressure and output gas peak pressure is in megapa (MPa) .

#### 8、气脉冲宽度 duration of air pulse

脉冲阀喷吹时，其输出口压力从0升至峰值后再下降到0的时间，单位为毫秒 (ms)。

When the pulse valve blows, the time when the outlet gas pressure rises from 0 to the peak and then decreased to 0 is in Milliseconds(ms).

#### 9、开启滞后时间 open- delay duration

从电信号输入先导阀到脉冲阀开启所需要的时间，也称开启响应时间，单位为毫秒 (ms)。

The duration for the pilot valve to obtain electrical signal till the opening of pulse valve is in Milliseconds(ms) which is also knows as open response time.

### 3 定义 DEFINITION

- 10、气、电脉冲宽度差 duration difference between air pulse and electric pulse  
气脉冲宽度与电脉冲宽度之差，单位为毫秒（ms）。  
The duration difference between air pulse and electric pulse is in Milliseconds(ms).
- 11、喷吹气量 blowing gas volume  
脉冲阀每次喷吹所耗用标准状态下的气量，单位为升（L）。  
The standard gas consumption of each blow by pulse valve is in Litre(L).
- 12、喷吹流量 blowing flow  
喷吹气量与气脉冲宽度之比，单位为升每毫秒/升（L/ms）。  
The ratio of blowing gas volume and gas pulse duration is in Litre per Milliseconds(L/ms).
- 13、脉冲阀通径 nominal diameter of pulse valve  
脉冲阀进出口所配置喷吹管的内径，单位为毫米（mm）。  
The nominal diameter for pulse valve outlet pipe is in Millimetre(mm).
- 14、脉冲阀的开度 opening stroke of pulse valve  
脉冲阀开启时其膜片或柱塞（阀片）的行程，单位为毫米（mm）。  
The shifting distance of diaphragm or valve flap during the opening of pulse valve is in Millimetre(mm).
- 15、开关特性曲线 switching characteristic curve  
表征脉冲阀喷吹时出口压力与时间关系的曲线。  
The curve of relationship between output gas pressure of characterization pulse valve and time.
- 16、喷吹量曲线图 curve diagram of blowing gas volume  
反映该型号规格电磁脉冲阀，在不同宽度电信号和气源初始压力状态下喷吹量的曲线图。  
The diagram representing the blowing gas volume of this specific electromagnetic pulse valve under different electric signal width and initial gas pressure.



## 4 喷吹性能主要参数 KEY PERFORMANCE INDICATOR OF BLOWING

### 1、 输出输入压力比 pressure ratio for output/input

此值清楚地反映脉冲阀本身阻力及脉冲阀输出的清灰压力。

测试装置：将电磁脉冲阀接至装有精度为1.5级压力表的标准储气罐，其输出口连接与其通径相同且长度为300mm的输出管(淹没式阀的输出管长度从分气箱外壁起计算)，在距输出管出口四分之一通径处安装压力传感器。

测试条件：输入宽度为50ms的电脉冲信号使脉冲阀喷吹，其出口峰值压力与入口气源初始压力之比，为该阀的输出输入压力比。

The value clearly indicated the inner resistance of pulse valve and the cleaning pressure of the output port as well. Testing equipment:connect the electromagnetic pulse valve to a standard gas storage tank equipped with a pressure gauge of 1.5 grade accuracy. The output port is connected with a same size output tube in length of 300mm.(The output tube length of immersion valve is calculated from the outwall of air tank).Install the pressure sensor from the 1/4 distance of output pipe outlet.

Testing Condition:Input electric pulse signal with 50ms width and the ratio of output peak pressure and original pressure of input gas is the input and output pressure ratio.

### 2、 输出压力上升速率 rising rate of the outlet pressure

此值越高，脉冲阀清灰能力越强。

按照第一款的测试装置和条件：将电磁脉冲阀出口峰值压力除以出口压力从0升至峰值的时间，为该阀的输出压力上升速率。

The higher the value, the better cleaning capability of the pulse valve.

According to the testing device and the condition of the first item,the ratio of output peak pressure and duration time of output pressure from 0 to peak of the electromagnetic pulse valve is the output rate of pressure rise.

### 3、 气、电脉冲宽度差 duration difference between air pulse and electric pulse

此值可以了解脉冲阀的关闭性能和可控程度。

按照第一款的测试装置，测试条件：将宽度50ms的电脉冲信号输入电磁脉冲阀，计算其喷吹时气脉冲宽度与对应的电脉冲宽度之差。三次宽度差测试结果的平均值，即为该阀的气、电脉冲宽度差。

The value indicated the closing performance and the controllable degree of the pulse valve.

According to the testing device and the condition of the first item,input the electrical pulse signal with 50ms width and calculate the difference between gas pulse width with corresponding electric pulse width. The average value of three testing result is the gas and electric pulse width difference.

### 4、 喷吹流量 blowing flow

此值能正确衡量脉冲阀喷吹量的大小，而不会将关闭性能差的脉冲阀误判为喷吹量大。

按照第一款的测试装置，测试条件：将宽度50ms的电脉冲信号输入电磁脉冲阀，根据喷吹前、后标准储气罐的压力值。按以下公式计算喷吹气量。

The value could be used to assess the blowing volumn of pulse valve instead of mis-judging the bad closing performace pulse value as over blowing.According to the testing device and the condition of the first item, input the electrical pulse signal with 50ms width and calculate the blowing volumn according to the blow equation based on the standard air tank pressure value before and after the blowing.

## 4 喷吹性能主要参数 KEY PERFORMANCE INDICATOR OF BLOWING

$$\Delta Q = \frac{P_0 Q}{P_{amb}} \left[ 1 - \left( \frac{P_1}{P_0} \right)^{\frac{1}{K}} \right]$$

公式中 within the formula

$\Delta Q$  — 喷吹气量，单位为升(L)；

The blowing air volumn is in Litre(L).

$P_0$  — 喷吹压力，即喷吹前储气罐的压力，单位为兆帕（MPa）；

Blowing pressure which is the air tank pressure before blowing is in megapa(Mpa).

$P_{amb}$  — 标准大气压力，单位为兆帕（MPa）；

normal atmospheric pressure in megapa(Mpa).

$P_1$  — 喷吹后储气罐的压力，单位为兆帕（MPa）；

The air tank pressure after blowing is in Mpa.

$Q$  — 储气罐容积，单位为升(L)；

The tank volumn is in Litre(L).

$K$  — 比热比，对于空气等双原子分子，=1.4。

specific heat rate is 1.4 compared with the air or other diatomic molecules.

将每次喷吹气量 $\Delta Q$ 除以气脉冲宽度得出喷吹流量。三次测量所得喷吹流量的平均值即为电磁脉冲阀喷吹流量。

You could get the blowing volumn of each blow by deviding the blowing volumn  $\Delta Q$  by the gas pulse width.The average value of three testing results is the blowing volumn of the electromagnetic pulse valve.

■ 本手册“附录”中部分内容摘自机械行业标准JB/T5916-2013《袋式除尘器用电磁脉冲阀》相关章节（个别文字有删节）。

Content from this chapter is extracted from mechanical industry standard JB/T5916-2013 <Electromagnetic pulse valve for bag filters>(with some words mobified).