

## Automatic Self Cleaning Filter

### Product Description

Automatic self-cleaning filter is mainly composed of a drive part, an electric control cabinet, a control pipeline (including a differential pressure switch), an high strength filter screen, a cleaning component (brush type or scraper type), connection flange, etc. It is usually made of SS304, SS316L, or carbon steel.



### Working principle

When the liquid is pumped into the filter machine, the impurities are intercepted by filter mesh, the filtrate passes through the filter mesh and out of the machine.

Once the pressure difference between inlet and outlet of the filter machine reaches the set value or the timer reaches the set time, motor runs to rotate the brush/scraper for cleaning, and the drain valve opens at the same time. The impurity particles on the filter mesh are brushed by the rotating brush/scraper, then discharged from the drain outlet.

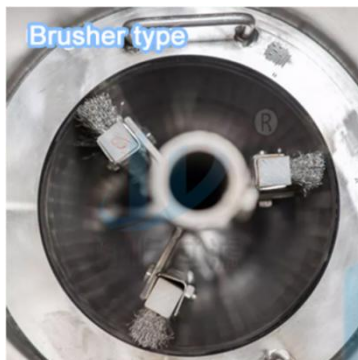
In the whole process, the filtrate does not stop flowing, realizing continuous and automatic production.

## Application industries

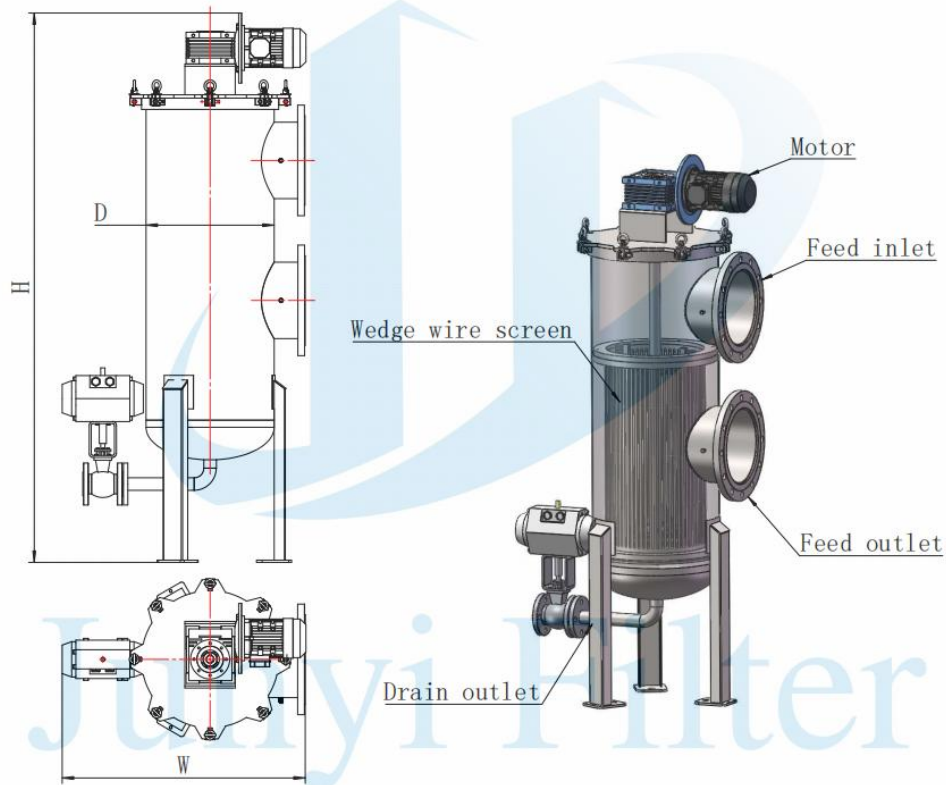
Self-cleaning filter is mainly suitable for fine chemical industry, water treatment system, paper making, automotive industry, petrochemical industry, machining, coating and other industries.

## Product Features

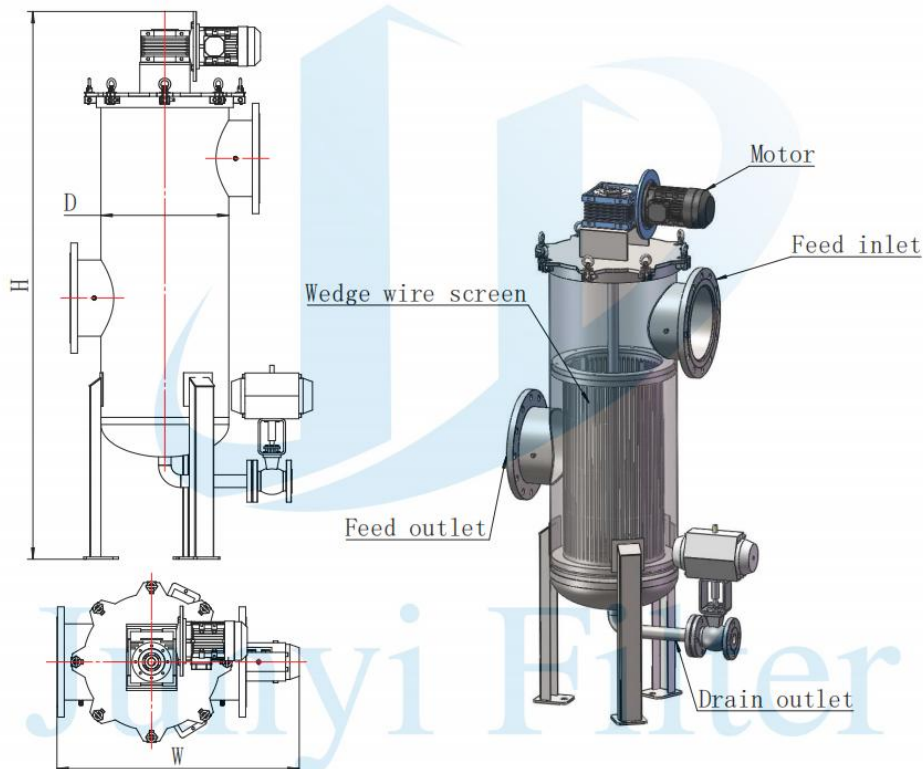
1. The control system of the equipment is responsive and accurate. It can flexibly adjust the pressure difference and time setting value according to different water sources and filtration accuracy.
2. The filter element adopts stainless steel wedge wire mesh, high strength, high hardness, wear and corrosion resistance, easy to clean. Easily and thoroughly remove impurities trapped by the filter screen, cleaning without dead corners.
3. We use pneumatic valve, open and close automatically and the draining time can be set.
4. The structure design of the filter equipment is compact and reasonable, and the floor area is small, and the installation and movement are flexible and convenient.
5. The electric system adopts integrated control mode, which can realize remote control too.
6. The modified equipment can ensure filtration efficiency and long service life.



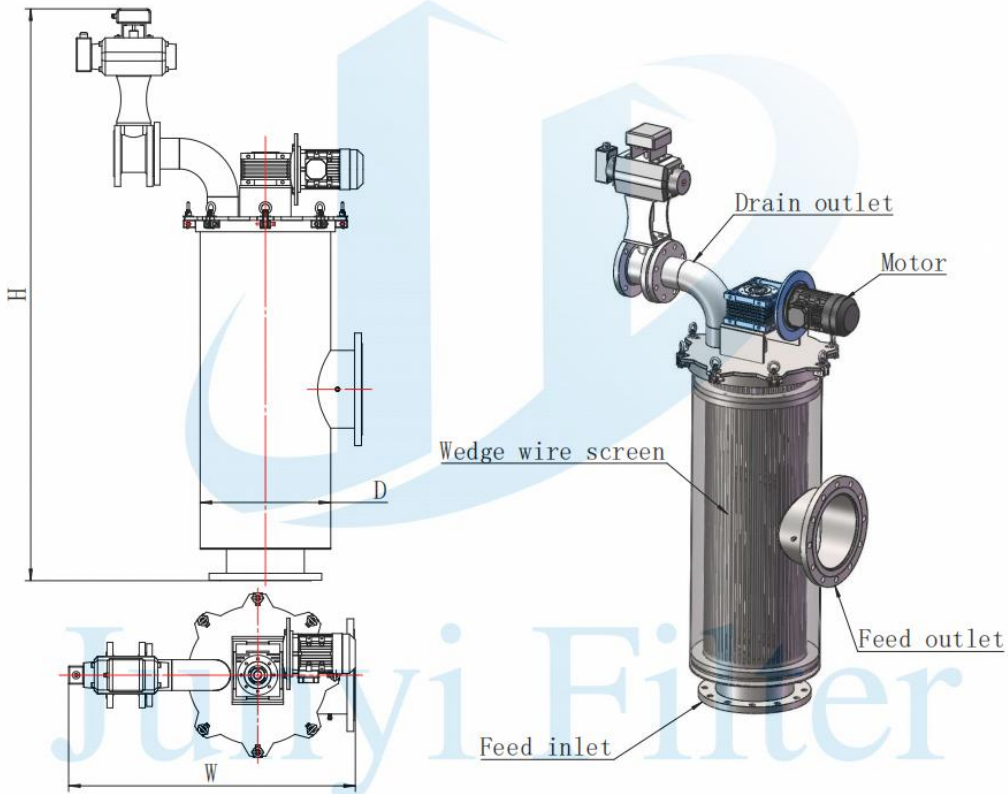
**Side in + same side out self-cleaning filter**



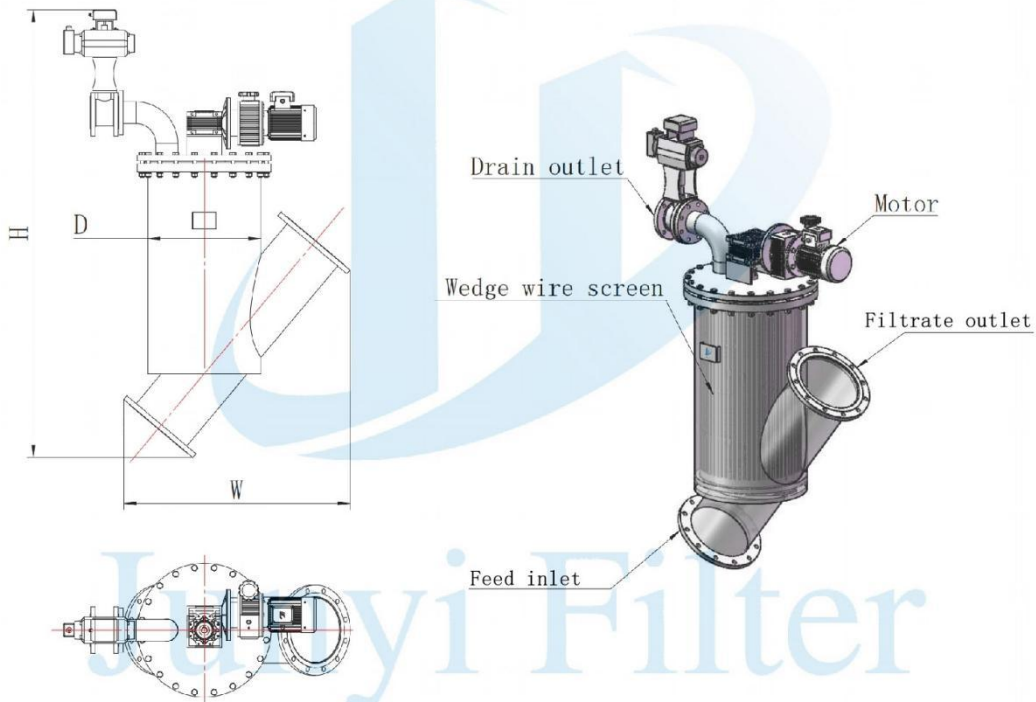
**Side in + other side out self-cleaning filter**



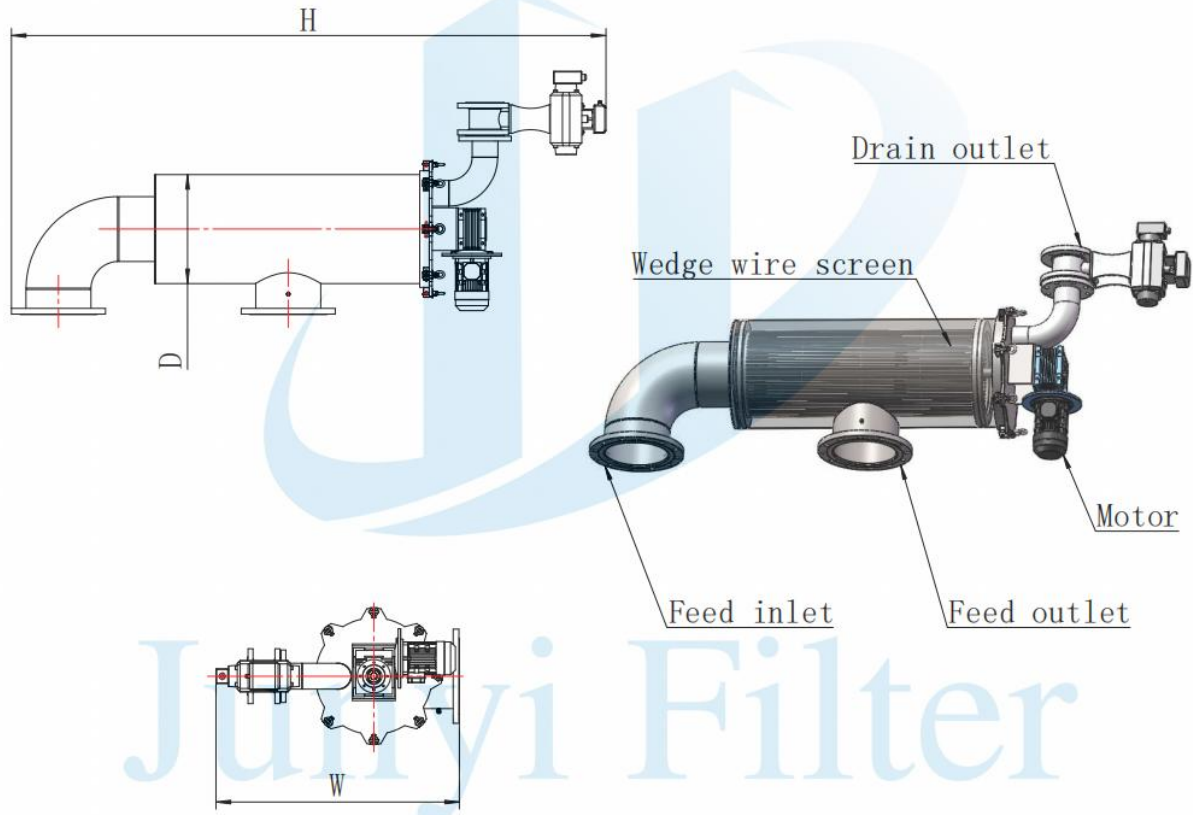
**Bottom in + side out self-cleaning filter**



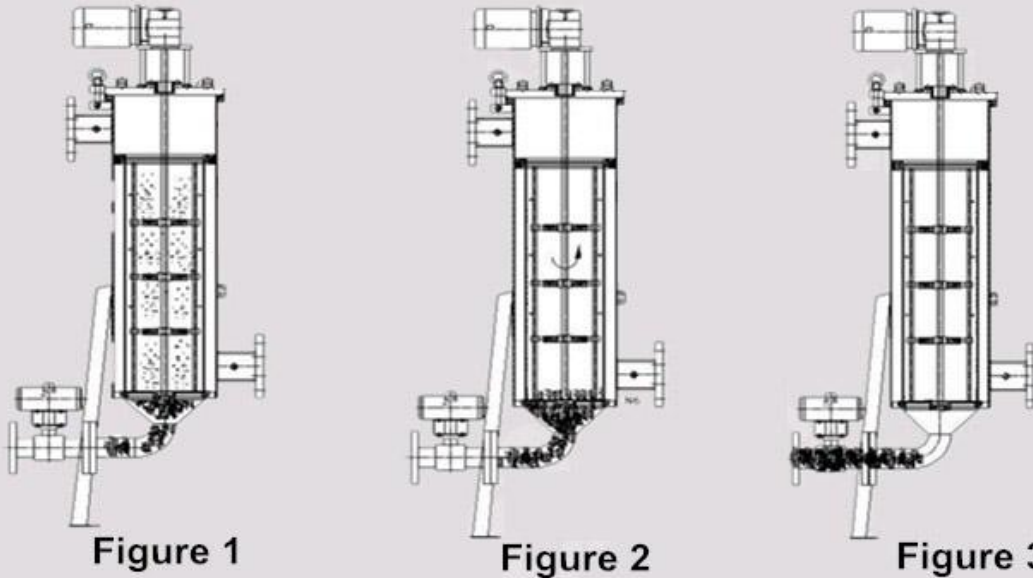
**Y type self-cleaning filter**



Horizontal type self-cleaning filter







## How does Junyi series automatic self cleaning filter machine work?

### Filtering status (Figure 1)

Liquid flows inside from the inlet. The liquid flows outwards from the inner of the filter mesh and flows out from the outlet, the impurities are intercepted.

### Cleaning status (Figure 2)

With the passage of time, the internal impurities gradually increase, the differential pressure rises. When the differential pressure or the timing reach the set value, the motor runs to drive the scraper/brush to rotate horizontally to clean the filter mesh. When rotates, impurities are cleaned off and dropped to the bottom of the filter.

### Discharging status (Figure 3)

After the filter mesh is cleaned several seconds, the filtering ability is restored. The drain valve is opened automatically, and the waste liquid containing high concentration of impurities is discharged.

PLC control the machine, the cleaning time and drain valve open time can be set according to your usage. No filtration interruption in the whole process, realize continuous, automatic production.

Note: Above drawings for reference, we accept customization.

## Technical Parameter

| Model     | Flow rate<br>m <sup>3</sup> /h | In/Out<br>Calibre | Blow-down<br>Calibre | Barrel<br>Diameter | W(mm) | H(mm) | Filter<br>Flow (t/h) | Filter area<br>(cm <sup>2</sup> ) | Blow-down<br>Valve (mm) | One wash<br>Valve (kg) | Motor<br>power (KW) |
|-----------|--------------------------------|-------------------|----------------------|--------------------|-------|-------|----------------------|-----------------------------------|-------------------------|------------------------|---------------------|
| JYSCF-50  | 20                             | DN50              | DN25                 | 219                | 550   | 1060  | 25                   | 2750                              | DN25                    | 60                     | 0.55                |
| JYSCF-65  | 30                             | DN65              | DN25                 | 273                | 550   | 1060  | 30                   | 2750                              | DN25                    | 60                     | 0.55                |
| JYSCF-80  | 40                             | DN80              | DN25                 | 273                | 550   | 1060  | 50                   | 2750                              | DN25                    | 60                     | 0.75                |
| JYSCF-100 | 60                             | DN100             | DN50                 | 273                | 550   | 1060  | 80                   | 2750                              | DN25                    | 60                     | 0.75                |
| JYSCF-125 | 100                            | DN125             | DN50                 | 273                | 550   | 1060  | 120                  | 2750                              | DN40                    | 150                    | 1.1                 |
| JYSCF-150 | 150                            | DN150             | DN50                 | 325                | 750   | 1335  | 160                  | 6000                              | DN40                    | 150                    | 1.1                 |
| JYSCF-200 | 250                            | DN200             | DN50                 | 377                | 750   | 1335  | 300                  | 6000                              | DN50                    | 200                    | 1.5                 |
| JYSCF-250 | 400                            | DN250             | DN50                 | 426                | 750   | 1335  | 450                  | 6000                              | DN50                    | 200                    | 1.5                 |
| JYSCF-300 | 500                            | DN300             | DN50                 | 529                | 750   | 1335  | 650                  | 6000                              | DN50                    | 200                    | 1.5                 |
| JYSCF-350 | 750                            | DN350             | DN80                 | 529                | 890   | 1800  | 900                  | 12000                             | DN65                    | 350                    | 2.2                 |
| JYSCF-400 | 1000                           | DN400             | DN80                 | 600                | 890   | 1800  | 1200                 | 12000                             | DN65                    | 350                    | 2.2                 |
| JYSCF-450 | 1200                           | DN450             | DN100                | 600                | 1205  | 1975  | 1500                 | 15000                             | DN65                    | 350                    | 2.2                 |
| JYSCF-500 | 1500                           | DN500             | DN100                | 700                | 1205  | 1975  | 2000                 | 15000                             | DN65                    | 350                    | 3.0                 |
| JYSCF-600 | 2100                           | DN600             | DN100                | 800                | 1302  | 2000  | 2800                 | 18000                             | DN65                    | 350                    | 3.0                 |
| JYSCF-700 | 3000                           | DN700             | DN200                | 900                | 1399  | 2050  | 3000                 | 21000                             | DN65                    | 350                    | 3.0                 |