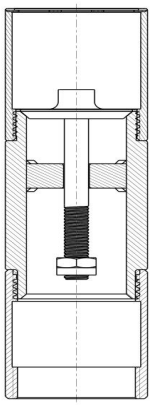
RVG1.2 Pressure relief Valve

◆ Application

The function of the pressure relief valve is used for adjusting the pressure or vacuum of high pressure blowers.
Using a T - connector to connect the relief valve on the inlet or outlet pipe, relief valve can help to release excessive pressure / vacuum to protect the blower from being overload.

◆ Picture

Inner construction



◆ Model and Technical Parameters:

RVG1.2 Pressure Relief valve					
Model	Adjusting Range	Temperature	Application Type	Debugging Mode	Caliber
RVG1.2	80-800mbar	-20-150℃	Vacuum/ Compress	Screw Plunger	1 1/4

◆ Component

Relief Valve is constituted by steel casing,bottom sealing sheet, spring, crown sheet, adjusting screw plunger etc.

Through locking or loosening the pressure adjusting screw plunger to make the crown sheet compress or release spring, then the spring out of shape to some extent. When the pressure is greater than the spring`s deformation force, the Sealing

sheet will be opened, to release the excessive volume to maintain the system pressure in the adjusting range, then protect the blower.

◆ Operation principle and construction features

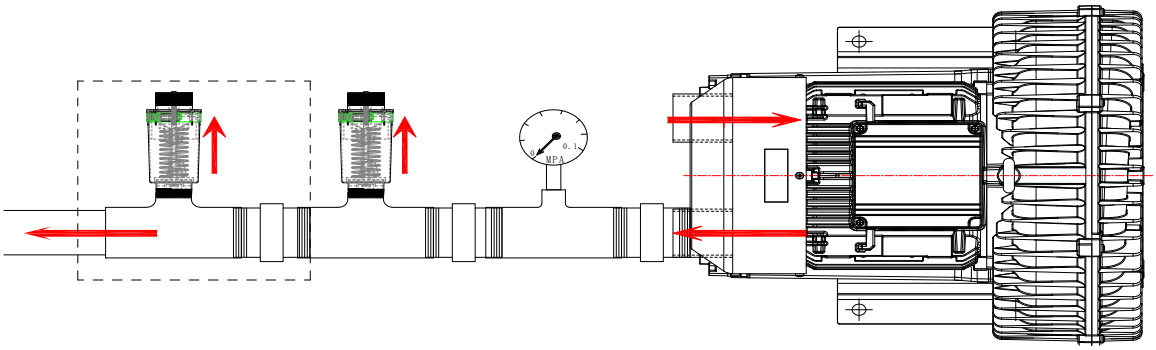
The relief valve is installed on inlet or outlet of side channel blower.

1.. When the working pressure or pressure surge inside the blowers overload than The rated pressure of side channel blower, the relief valve will be open within 0.2 minutes, the overload pressure will be released from relief valve in order to protect the blower.
When the working pressure reduces to safe value, the valve will be closed slowly, this will not cause the pressure surge again.

2. The materials and specification of relief valve RVG 1.2 :
--- Both inside and outside are steel
--- Can be used both pressure and vacuum
--- Adjusting Range is 80-800mbar（8-80kpa）

◆ Installation and Adjustment

A. Adjusting the RVG 1.2 pressure relief valve When blower using positive pressure:



The direction of arrow on the relief valve shows the flow of air, when using positive pressure installation, arrow up.

---Since the Adjusting Range of RVG 1.2 is 80-800mbar（8-80kpa),you will need to install 2pcs or more than 2pcs relief valves when using high - power, high flow, double stage high pressure blower

--- The inner screw plunger is used for adjusting the pressure of relief valve, locking screwplunger clockwise means turn up the pressure, loosening screw plunger means turn down the pressure. See below Figure 1.
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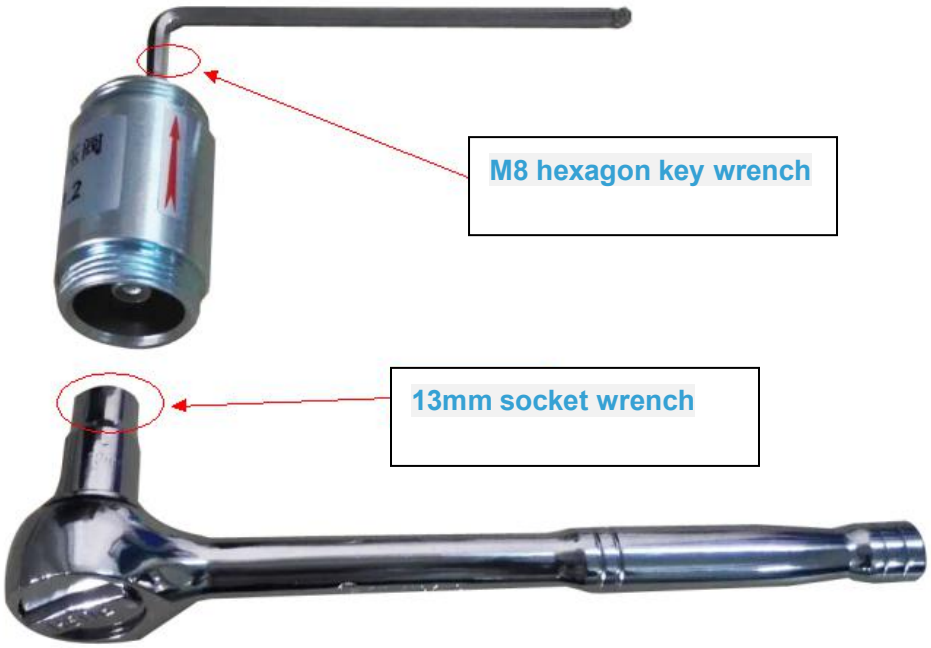
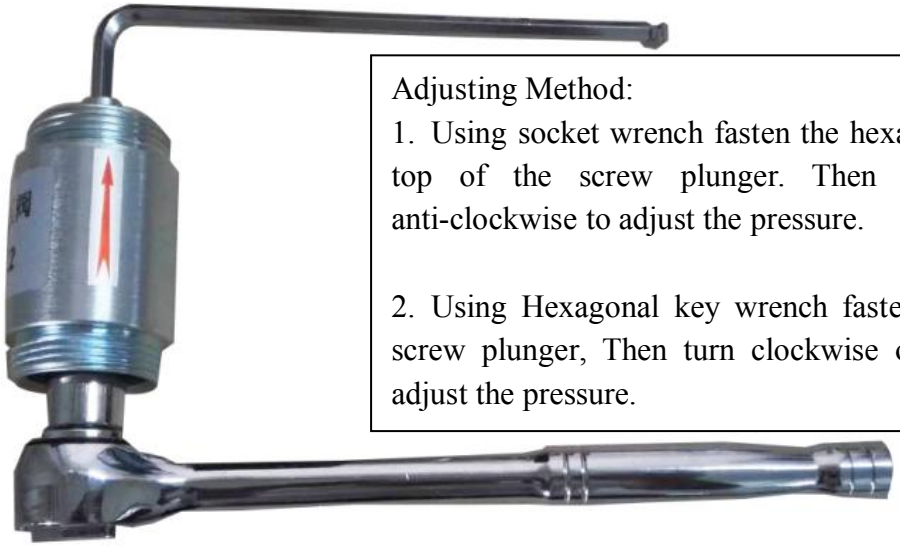




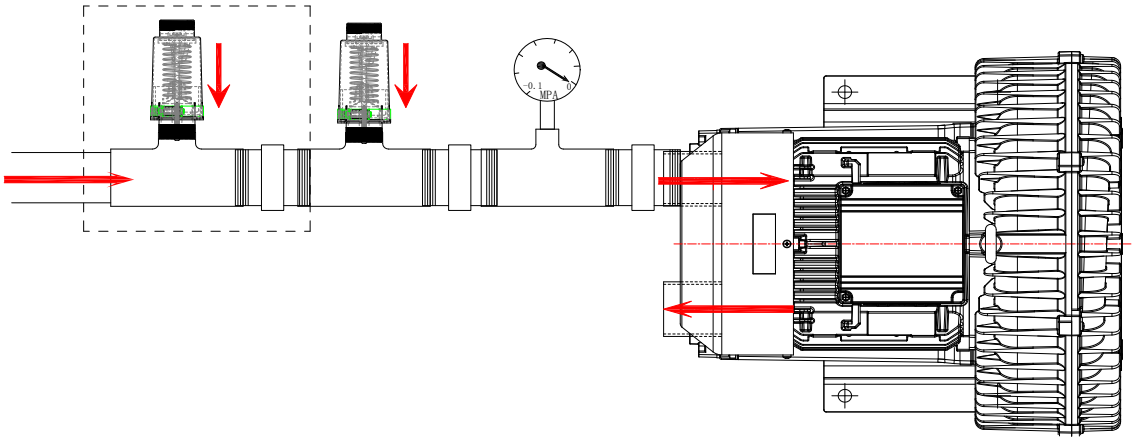
Adjusting Method:

1. Using socket wrench fasten the hexagonal socket on the top of the screw plunger. Then turn clockwise or anti-clockwise to adjust the pressure.

2. Using Hexagonal key wrench fasten the sleeve on the screw plunger, Then turn clockwise or anti-clockwise to adjust the pressure.

Figure 1

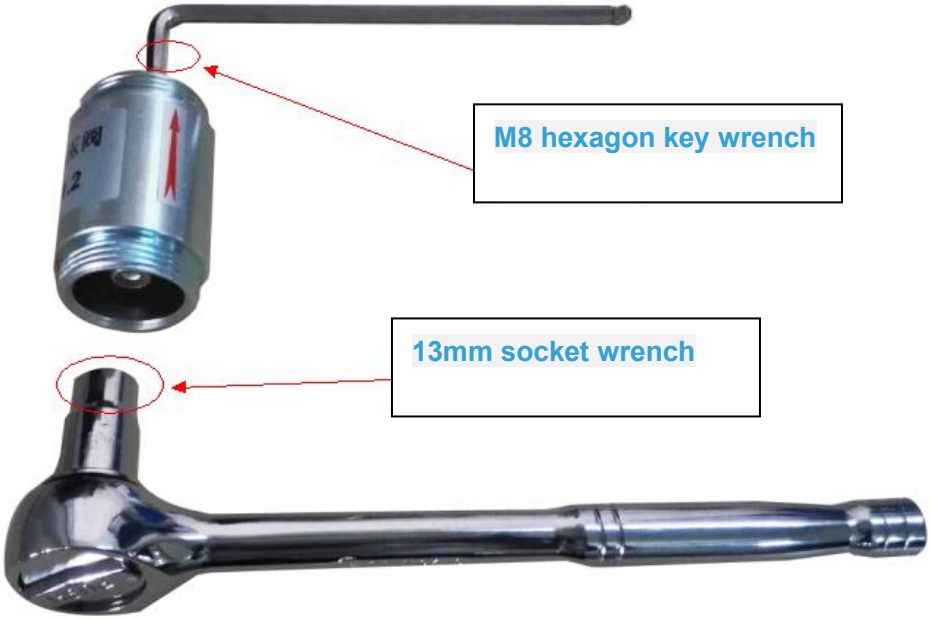
B. Adjusting the RVG 1.2 pressure relief valve When blower using negative pressure:

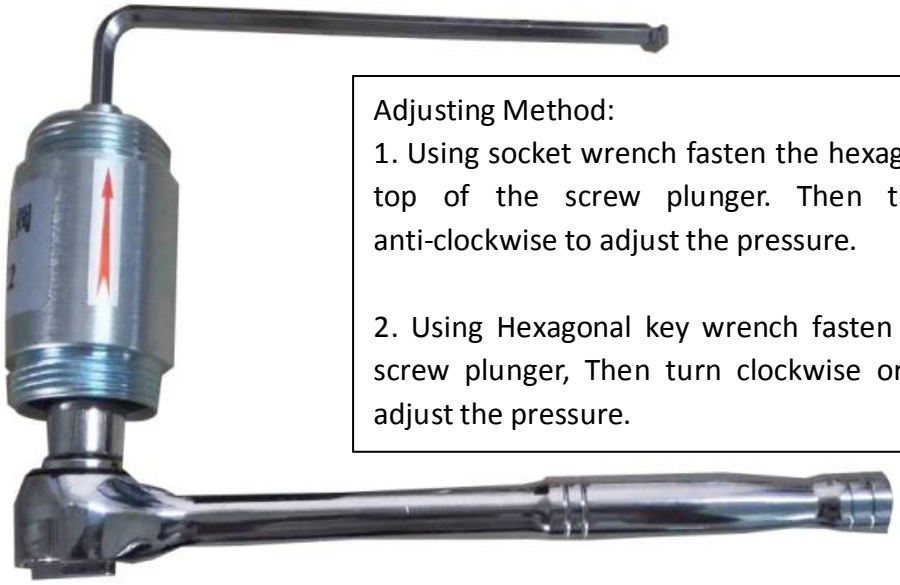


--- The direction of arrow on the relief valve shows the flow of air, when using negative pressure installation, arrow down.

--- Relief valve through releasing volume to reduce pressure,
Since the Adjusting Range of RVG 1.2 is 80-800mbar
（8-80kpa), you will need to install 2 or more than 2 relief valves when using high - power, high flow, double stage high pressure blower.

--- The inner screw plunger is used for adjusting the pressure of relief valve, locking screw plunger clockwise means turn up the vacuum, loosening screw plunger means turn down the vacuum (See below Figure 2)





Adjusting Method:

1. Using socket wrench fasten the hexagonal socket on the top of the screw plunger. Then turn clockwise or anti-clockwise to adjust the pressure.

2. Using Hexagonal key wrench fasten the sleeve on the screw plunger, Then turn clockwise or anti-clockwise to adjust the pressure.

Figure 2

◆ Setting Process

1. Confirm the Setting Pressure of Relief Valve

Firstly, confirm the rated pressure when purchasing blowers, the adjusting pressure of relief valve smaller than the blower`s rated pressure 2~4kpa is preferred.

2. Confirm the Installation direction of Relief Valve

Firstly, according to the actual situation to confirm the high pressure blower is positive pressure (blow), or negative pressure (suction), when using positive (blow), the relief valve`s arrow up; when using negative pressure (suction), the relief valve`s arrow down.

◆ Operation and maintenance

1.Only when the working pressure inside the blowers overload than the rated pressure , the relief valve will be open to release the excessive flow (Can feel by hand). Don't think the pressure valve doesn't work when there is no flow come out.

2. Comparing the running current with rated current to determine the quality of the release valve.

when running current is higher than rated current, the pressure relief valve should work and release flow. If it doesn't work,it means it is a bad one.

When the pressure relief valve works, but the operating current or the working pressure is still higher than the rated current or rated pressure, we should install more pressure relief valves.

◆ **Note：We should use G1.2" Inner connector to connect RVG1.2 pressure relief valve to the pipe.**