



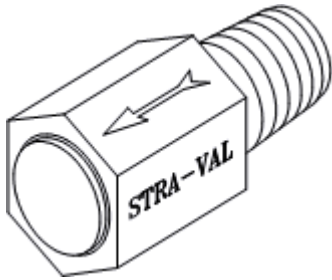
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21 Columbus Avenue
Garfield, NJ 07026

Model RVA-05

Relief Valve

Atmospheric Discharge (Liquid or Gas) used for hydrogen conversion kits



- Order as stainless steel valve, Hastelloy Valve, Titanium Valve & some sizes in brass
- 1/4"-3" NPT THD
- Adjustable relief pressures from 0.5 PSI (0.03 Bar) to 400 PSI (27 Bar)* (multiple springs)
- Tamper proof design, requires valve to be removed to readjust

Features

- **Body:** Standard materials are stainless steel, brass, and PVC (below 35 psi).
- **Poppet:** Stainless steel and brass are standard.
- **Spring:** Standard construction is stainless steel, even when used with brass body.
- **Lock nut:** Standard construction is stainless steel, even when used with a brass body.
- **Elastomeric seal:** Bubble-tight seal is achieved with standard elastomers such as Buna, Viton, and EPDM & Kalrez. Teflon (PTFE) being a harder material, will not seal to the same degree as the softer elastomers, and less than a bubble tight seal is to be expected.
- **Tamper-proof construction** This valve is not externally adjustable & requires removal of the valve to change the pressure setting.
- **Adjustable pressure relief valve** can be factory-set or adjusted in the field. Springs can be changed to achieve a different pressure range.

Applications

This is a compact inexpensive gas valve which is normally used for air or gases such as nitrogen, hydrogen and other gases which can be safely discharged to atmosphere. This RVA05 valve in a 3/8" size is very popular & is used in a [hydrogen generator](#) that is set for **85 psig**, and is used for automotive use to conserve gasoline. This model can be priced and ordered on line by selecting body and piston 303SS, Viton seat, and 302SS spring and requesting a set pressure of 85 psig. For pricing or ordering with these options preselected, click on this link [#N0422](#). Type in a discount code **H2** to get a 10% discount **only** when this item is ordered on line through our website. **The 10% discount is not available with phone or fax orders.**

Note we do not manufacture other related fittings for the hydrogen kit which is sold by others, only the valve.

Do not use on steam or other hot or dangerous exhaust gases or liquids, unless the valve is properly shielded or contained in an enclosure to prevent injury to nearby operators or personnel passing by. It is best to select a different model where the discharge can be safely piped away. Please refer to our model Rvi-05 series valves which has the extra threaded pipe connections to discharge. To make sure the valves are protected from dirt and debris which might clog the valve, a strainer with a fine wire mesh should be installed before the inlet of the valve. In-line strainer fittings or basket strainers can be purchased from Stra-Val to help solve this problem.

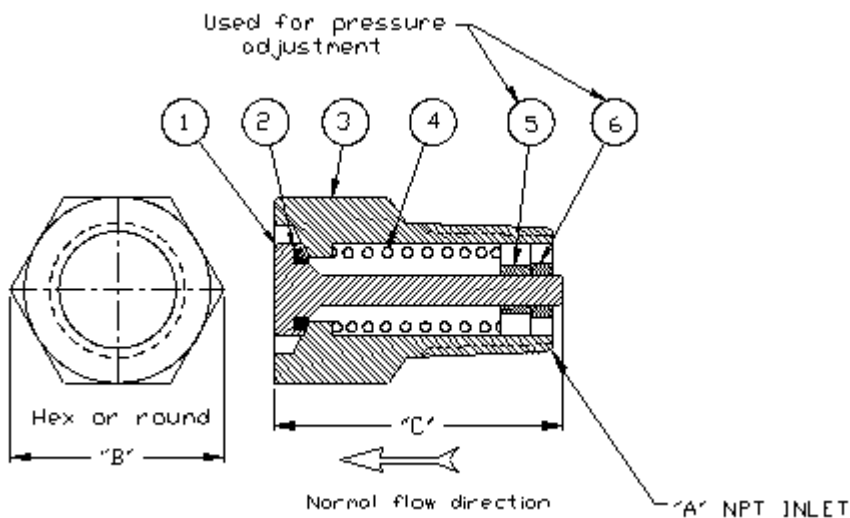
Options

Scroll down below to click on a valve size for pricing and then click on the spring range to see which options are available for that size. After selecting your options you may then print out a price, e-mail it (without having to contact the factory), and then when you are ready, proceed to order. When ordering don't forget to state your desired relief set pressure if you expect the valve to relieve at only one pressure. There is no extra charge for this. **If the set pressure is not specified, the valve will be set at or below the stated spring range as selected for the order and no set pressure will be engraved.**

Principle of Operation

This is a poppet and spring type relief valve where the spring constantly opposes the pressure acting against the poppet which seals off the inlet port. The desired set pressure or relief is achieved by compressing the spring until the spring force is adequate to balance the pressure force acting against the poppet. The valve can be ordered factory-set for a specific relief pressure, or can be adjusted in the field. In order to make the pressure adjustment, the valve needs to be unscrewed from its mounting position with pressure removed from the line. To increase the relief pressure, the spring must be compressed further clockwise looking into the spring, and to reduce the set pressure, visa versa. A small nut driver, screwdriver, or needle nose pair of pliers may be used to make pressure adjustments for the low pressure springs. Where frequent pressure adjustments are anticipated, a special adjusting tool which can be used for the 1/8" & 1/4" sizes only. This tool can be purchased from Straval, Part Number [T234](#) (Click on link to order). The larger sizes can be more easily adjusted with more conventional tools. However, ordering the valve to the correct set pressure at the factory would eliminate or minimize the need for making pressure adjustments in the field.

Valve must be removed from its port to adjust



RVA-05

The illustration above is shown with
the valve in the closed position

Material List and Specification

1. Poppet Brass & SS
2. Seal Buna, Viton, Epdm, PTFE, Kalrez
3. Body Brass & SS
4. Spring Stainless steel
5. Guide Brass & SS
6. Nut Stainless steel

Alternate elastomers available Alternate materials: See below in ordering options Other Spring Ranges quoted on application

Dimensions (inches)

Size A	B	C	Size A	B	C
1/8	0.58	1.06	1.25	2.00	4.00
1/4	0.66	1.06	1.5	2.25	4.25
3/8	0.88	1.31	2	3.00	4.25
1/2	1.00	1.75	2.5	2.50	4.25
1	1.25	1.13	3	3.00	6.13

*400 PSI for size 1/4" only

Note: Dimensions are approximate and are subject to change without notice. Request certified dimensions before final product installation.

1/8" Rva05-01T

Low pressure Group 2-225 psi (0.14-15.5 bar) 400 psi ~27.6 bar rating

Multiple Spring Ranges from:2-225 psig (0.138-15.5 barg) Select spring from pricing page

High Pressure Group to 400 psi (27.6 bar)

Multiple Spring Ranges from:250- psig (17.2- barg) Select spring from pricing page

1/4" RVA05-02T

Low Pressure Group 2-225 psi (0.14-15.5 bar) 400 psi ~27.6 bar rating

Multiple Spring Ranges from:2-225 psig (0.138-15.5 barg) Select spring from pricing page

High pressure group rating to 400 psi (27.6 bar)

Multiple Spring Ranges from:250- psig (17.2- barg) Select spring from pricing page

3/8" Rva05-03T

Plastics Pressure Group Rated 35 psi max (2.4 bar)

Multiple Spring Ranges from:2-35 psig (0.138-2.41 barg) Select spring from pricing page

Pressure Group 2-200 psi (0.14-13.8 bar) 300 psi ~20 bar rating

Multiple Spring Ranges from:2-200 psig (0.138-13.8 barg) Select spring from pricing page

1/2" Rva05-05t

Pressure Group 0.50-175 psi (0.034-10.3 bar) 300 psi ~20 bar rating

Multiple Spring Ranges from:0.5-175 psig (0.034-12.1 barg) Select spring from pricing page

3/4" Rva05-07t

Pressure Group 0.50-150 psi (0.034-10.3 bar) 300 psi ~20 bar rating

Multiple Spring Ranges from:0.5-150 psig (0.034-10.3 barg) Select spring from pricing page

1"Rva05-10T

Pressure Group 0.50-125 psi (0.034-8.6 bar) 300 psi ~20 bar rating

Multiple Spring Ranges from:0.5-125 psig (0.034-8.62 barg) Select spring from pricing page

1 1/4"Rva05-12t

Pressure Group 0.50-80 psi (0.034-5.5 bar)

Multiple Spring Ranges from:0.5-80 psig (0.034-5.52 barg) Select spring from pricing page

1 1/2" Rva05-15t

Pressure Group 0.50-75 psi (0.034-5.2 bar)

Multiple Spring Ranges from:0.5-75 psig (0.034-5.17 barg) Select spring from pricing page

2"Rva05-20t

Pressure Group 0.50-35 psi (0.03-2.4 bar)

Multiple Spring Ranges from:0.5-35 psig (0.034-2.41 barg) Select spring from pricing page

2 1/2" Rva05-25t

3"Rva05-30t

The spring ranges listed above are not achievable with one spring, but are compressed to show overall product capability. Select a specific spring range in the pricing pages or specify a set pressure when ordering.