

Read all instructions thoroughly

# I N S T R U C T I O N S

## Diaphragm Type Stop Valve Type ADV

**SAGInoMIYA**

### IMPORTANT

Failure to read and follow all Instructions carefully before installing or operating this Stop Valve could cause personal injury and/or property damage. Save this instruction for future use. Confirm the safety and the validity of the product for your system before using.

### CAUTION FOR SAFETY

#### ⚠ CAUTION

- Do not give the excess pressure (more than Maximum working pressure) to the Valve in order to avoid the damage.
- When removing the Valve from a pipe, make sure that there is no pressure of fluid left in a pipe before removal. In case any pressure is left, it is dangerous to pop out the fluid.
- Do not remove a upper lid from a Valve body. It is dangerous to pop out the fluid.
- It is dangerous for oxygen deficiency when refrigerant leakage is happened from the Valve. Proceed relating work after confirming safety sufficiently.

### NUMBERING SYSTEM

- Catalog number indicates the type and functions of the valve as follows.  
Check the specifications stated in an individual box before installing or operating a valve.

Example:

$\frac{ADV - 16}{I} \frac{05}{II} \frac{B}{III} \frac{Y}{IV} \frac{V}{V}$

I : Type

II : Port Size

III : Connection Size

IV : Connection Type

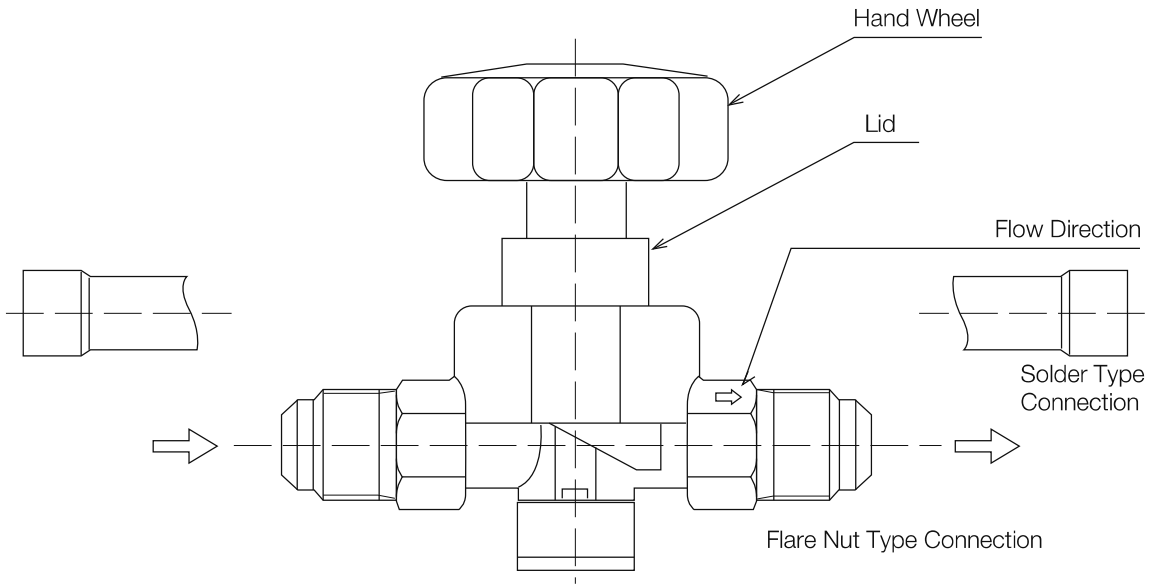
V : Max. Working Pressure

Table-1

I	ADV	Diaphragm type stop valve	
II	16	ø16 mm	
III	05	Inlet/Outlet: 5/8inch	
IV	B	Flare Nut Connection	
	D	Solder Connection	
V	Y	3.6MPa	

# DESIGNATION

Fig-1

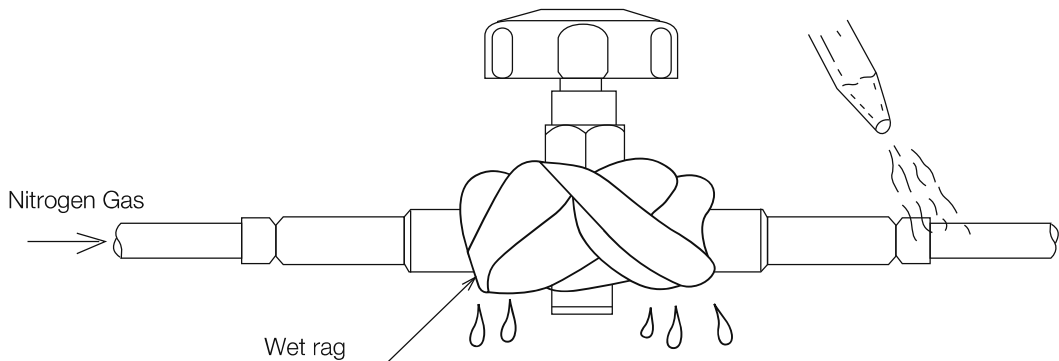


# PRODUCT SPECIFICATION

- Fluid : Refrigerant (R22 and R134a etc.) , Air
- Fluid Temp. : -40 to 120°C
- Maximum Working Pressure (MP) : 3.6MPa
- Airtight Test Pressure : 5.4MPa
- Read the specifications thoroughly before use.
- Use the Valve under the conditions of the above specifications in order to avoid malfunction of the Valve or break of it.

## INSTALLATION INSTRUCTIONS

- When installing the Valve on the pipe, make sure that the arrow mark on the Valve body points in the direction of fluid flow. Outlet pressure should not be higher than inlet pressure because the Valve can not open. Do not use the Valve in a reverse flow in order to avoid breakdown of the Valve.
- The Valve can be installed in either vertical, horizontal or oblique direction.
- Before installing, clean the inside of the pipes and remove dust, foreign particles or moisture.
- Special attention is required not to apply unnecessary force like compression, tension or torsion against the Valve when piping.
- In case of installing Flare connection type, wrenching after removing handle is easier if wrenching hexagon on the Valve is hard by surroundings.
- As to solder connection type, it doesn't need to disassemble the Valve in soldering though, make sure that the Valve is totally open and the Valve is wrapped with fully wet rag in order to prevent the Valve temperature rise, also the Valve is supplied with inert gas (nitrogen gas or carbon dioxide) in order to avoid oxidation of the inside of the Valve.  
Do not point burner fire at the Valve body.
- Execute air tight test after piping.



## HANDLING

- Do not give any flaw or deformation to the Flare surfaces or Solder connections in order to avoid the external leakage.
- Do not hit or give any shock to the Valve to avoid failure.
- Do not turn the spindle with a monkey spanner or other tools in order to avoid break of the Valve.
- To fully open the Valve, turn lightly a Hand wheel counter-clockwise until it stops. After Valve is fully opened, further turn of the wheel in the opening direction
- Counter-clockwise will shut a back sheet giving emergency seal effect.
- Do not use the Valve in the corrosive environment to avoid external leakage or damage.

## OPERATION CHECK

- Install and calibrate the product correctly and then check its operation to confirm correct function of the whole system when using.

## LIMIT ON APPLICATION

- The product is not designed nor manufactured for an use in such equipment or system that is intended to be used under such circumstances that may affect human life.

For application requiring extreme high reliability, please contact the company first.

## SCOPE OF WARRANTY

- Unless otherwise agreed by the parties, warranty period of the product shall be one year after date of delivery to Buyer.

In case of failure attributable to the company within such period, the product shall be repaired or replaced without charge, provided that any one of followings are out of the warranty:

1. Improper handling or application by user
2. Modification or repair by other than the Company
3. Any failure to be caused by acts of God, fire, storm or the like war, riot or the like and other causes beyond the control of the company.

Warranty described in this paragraph means the warranty for the product.

itself and does not include warranty for any consequential damage arising out of or occasioned by a defect or failure of the product.

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## REFERENCE

**SAGINOMIYA**  
**SEISAKUSHO, INC.**

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## CONSENT RELATED TO DISCLAIMERS

We, SAGINOMIYA SEISAKUSHO, INC., (hereinafter referred to as "Saginomiya"), truly appreciate your choosing Saginomiya's product (hereinafter referred to as this "Product").

When this Product is used, this document as provided below shall be applicable except to the extent that there is anything to the contrary in any applicable estimate, agreement, catalogue, specification, etc.

### ● CONFIRMATION OF OPERATION

All customers using this Product (hereinafter referred to as "Customers") are requested to, after properly installing this Product, test the operation of this Product to confirm that all the systems in connection with this Product fully function.

In order to prevent the occurrence of bodily injury, fire accidents, serious damage, etc., in connection with the Customers' machinery or equipment due to improper installation of this Product, Saginomiya kindly requests the Customers to take the necessary safety measures by preparing safe designs such as a fail-safe design (\*1) and a fire spread prevention design, as well as to make the proper adjustments for product reliability necessary for fault-tolerance (\*2).

(\*1) Fail-safe design: Design to ensure safety in the event of any mechanical failure

(\*2) Fault-tolerance: Utilization of redundancy technology

Periodic Inspection of this Product

Be sure to confirm the proper operation of this Product and keep records of such operation at least once a year.

Saginomiya shall be held harmless and be indemnified by the Customers from any damages incurred due to the Customers failing to conduct the above operational procedures, provided, however, that, this shall not apply if the damages which the Customers incurred due to the defect of this Product caused by Saginomiya.

### ● RESTRICTIONS OF USE

This Product is designed and manufactured for the purpose of using them for cooling and heating and refrigerating appliances and air conditioning equipment or various industrial equipment, but is not designed and manufactured for the purpose of using this Product for any instrument or system related to human life or health purposes.

Therefore, the use of this Product in fields related to items (1) through (3) below is not intended whatsoever.

Saginomiya shall be held harmless and be indemnified from any and all damages incurred by use of this Product under item (3).

- (1) In any field related to nuclear power and radiation;
- (2) In any field related to space or seafloor equipment;
- (3) In any equipment or device requiring a high degree of reliance on such equipment or device with respect to which it is reasonably foreseeable that failure or malfunction of the equipment or device would either directly or indirectly cause serious damage to human life, health or property;

Also, when using this Product under the fields related to items (1) through (10), (except for item (3), in relation to which this Product must never be used), please be sure to notify Saginomiya's contact desk in charge of sales and obtain Saginomiya's prior written approval for such use.

Saginomiya shall be held harmless and be indemnified from any and all damages incurred by use of this Product in relation to these fields if the Customers do not notify Saginomiya's contact desk and obtain Saginomiya's prior written approval.

- (4) Heating, cooling and air conditioning equipment that uses flammable and/or toxic refrigerants, or various industrial equipment that uses flammable and/or toxic fluids;
- (5) Transportation device (railroad, aviation, ship or vessel, vehicle equipment, etc.);
- (6) Disaster-prevention or crime-prevention device;
- (7) Facility or application directly related to medical equipment, burning appliances, electro thermal equipment, amusement rides and devices, facilities/applications associated directly with billing;
- (8) Equipment requiring high reliance on supply systems such as electricity, gas, water, etc., in large-scale communication system, or in transportation or air traffic control system;
- (9) Facilities that are to comply with regulations of governmental / public agencies or specific industries or
- (10) Other machineries or equipment equivalent to those set forth in the above items (4) to (9) which require for high reliability and safety.

It is recommended to replace this Product within 5 to 10 years of delivery if no other duration of use is provided in the applicable specifications or instruction manual because the conditions and environment of use also have an impact on this Product.

### ● SCOPE OF WARRANTY

SAGINOMIYA WILL PROVIDE THE CUSTOMERS WITH REPLACEMENT OR REPAIRED THIS PRODUCT DELIVERED, FREE OF COST, ONLY WITHIN ONE YEAR OF DELIVERY TO THE CUSTOMER, IF FAILURE OCCURS IN THE CUSTOMERS' EQUIPMENT USING THIS PRODUCT DUE TO A DEFECT OF THIS PRODUCT; PROVIDED, HOWEVER, THAT IN ANY EVENT THE RATIO OF THE AMOUNT THAT SAGINOMIYA BEARS FOR THE DAMAGES INCURRED BY THE FAILURE OF THIS PRODUCT OR CUSTOMERS' EQUIPMENT SHALL NOT EXCEED THE PRICE OF THIS PRODUCT WE DELIVERED. IN ADDITION, SAGINOMIYA SHALL BE HELD HARMLESS AND BE INDEMNIFIED FROM ANY AND ALL DAMAGES INCURRED WHEN THE FAILURE OF THE CUSTOMERS' EQUIPMENT OCCURRED DUE TO ANY CAUSE SET FORTH BELOW.

- (1) WHEN CAUSED BY INAPPROPRIATE HANDLING OR USE OF THIS PRODUCT BY THE CUSTOMERS (SUCH AS NOT COMPLYING WITH THE CONDITIONS, ENVIRONMENTAL SPECIFICATIONS OR CAUTIONS INDICATED IN ANY APPLICABLE CATALOGUE, SPECIFICATIONS, INSTRUCTION MANUAL, ETC.);
- (2) WHEN FAILURE OCCURRED DUE TO ANY REASON OTHER THAN THIS PRODUCT;
- (3) WHEN CAUSED BY MODIFICATION OR REPAIR OF THIS PRODUCT MADE BY ANYONE OTHER THAN SAGINOMIYA OR DESIGNEE OF SAGINOMIYA;
- (4) WHEN CAUSED BY THE USE OF THIS PRODUCT IN VIOLATION OF THE ABOVE "RESTRICTIONS OF USE" OR "CONFIRMATION OF OPERATION";
- (5) WHEN SUCH FAILURE WAS NOT REASONABLY FORESEEABLE AT THE TIME OF SAGINOMIYA'S SHIPMENT; OR
- (6) BY ANY OTHER CAUSE NOT ATTRIBUTABLE TO SAGINOMIYA, SUCH AS AN ACT OF GOD, DISASTER, OR ACT OF ANY THIRD PARTY.

PLEASE NOTE THAT THE CUSTOMERS WILL NOT BE ENTITLED TO ANY OF THE ABOVE WARRANTY IF THE CUSTOMERS PURCHASED THIS PRODUCT FROM INTERNET AUCTION, ETC.