

## INSTALLATION, OPERATION AND MAINTENANCE MANUAL

### Pneumatic Shuttle Valve

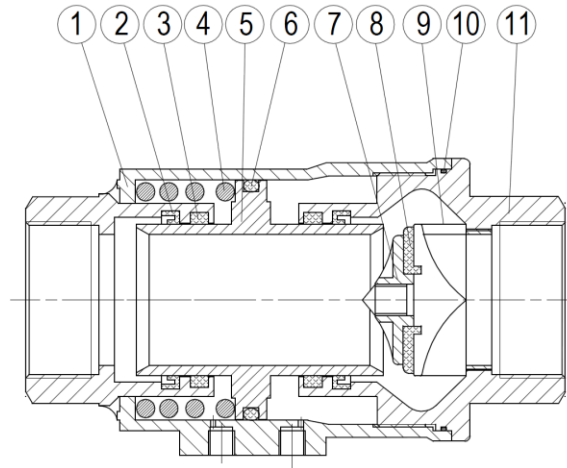


GENEBRE Ref.: 5062 – 5062N

## INSTRUCTIONS FOR INSTALLATION, OPERATION & MAINTENANCE MANUAL

<b>1. Breakdown drawing</b> .....	3
1.1 List of components .....	3
<b>2. Storage Conditions</b> .....	3
<b>3. Installation Instructions</b> .....	4
3.1 Preparation .....	4
3.2 Installation .....	5
3.3 Pneumatic connection .....	5
3.4 Change of default position from N.C. to N.O. ....	6
<b>4. Operating Instructions</b> .....	6
4.1 Use .....	6
4.2 Special Conditions .....	6
<b>5. Maintenance Instructions</b> .....	7
<b>6. Repair Instructions</b> .....	7
<b>7. Safety Instructions</b> .....	7

## 1) Breakdown drawing.



### 1.1) List of components:

Nº	Name	Material	Surface Treatment
1	Body	Stainlees Steel CF8 (AISI 304)	Shot blasting
2	Y-Ring	EPDM	-----
3	O´ring	EPDM	-----
4	Spring	Stainless Steel 304	-----
5	Piston	Stainless Steel 304	-----
6	O´ring	EPDM	-----
7	Nut	Stainless Steel 304	-----
8	Seat	EPDM	-----
9	Core	Stainless Steel 304	-----
10	O´ring	EPDM	-----
11	Cap	Stainlees Steel CF8 (AISI 304)	Shot blasting

## 2) Storage

During storage it is recommended to keep the packaging on to avoid bumps o excessive dirt (the packaging should not be removed until the item is to be installed). Store in a dry clean environment whenever possible.



**Transportation and storage of these items must be done in its original packaging!**

## VISUAL INSPECTION

Check that the equipment has not been damaged during transportation, unloading and settling.

## MECHANICAL VERIFICATION

Check that all moveable parts on the equipment, as well as the screws and other elements do their job.



Should any error be detected during this reception procedure, contact GENE BRE immediately so as to resolve whose responsibility it is and to set the equipment back to the correct operating state!

## IMPORTANT NOTE:

Before installing and/or handling these pneumatic elements, READ CAREFULLY these instructions and OBSERVE all the information contained therein. Should you not understand any piece of information, please contact GENE BRE, S.A.



Responsibility for the safe use of this equipment belongs to the user, as established in these instructions, as well as in the technical documentation specific to the supplied equipment.

## 3) Installation Instructions

### 3.1) Preparation

Remove any remains of packaging from the valve.

There might be serious problems caused by valves installed in a dirty pipe.

Make sure the valve is free of dirt, welding particles, etc. before installation, since the valve might suffer irreparable damage when the equipment is turned on → *prepare a clean working area.*

Plan enough space for future maintenance operations.

## 3.2) Installation

Make sure the pipe and the thread on the pipe are clean and are compatible (Thread type). Apply the proper sealer on the pipe threads and screw the valve in carefully so as not to tighten the conical threads in excess.

Do not use the valve actuator as a crowbar to thread the valve to the pipe.

To tighten the valve to the pipe, it is recommended to use a flat wrench or a monkey wrench, applying strength only on the hexagonal area on the ends of the valve. It is recommended to apply less than 30 Nm of strength.

*The design of this type of valve has only one mounting position on the pipe, which is indicated by an arrow engraved on the body of the valve to know which direction the fluid must flow.*



The shuttle valve is delivered assembled with the spring in the Normally Closed (N.C.) position. However, if you need a Normally Open (N.O.) position, proceed as explained in section 3.4.

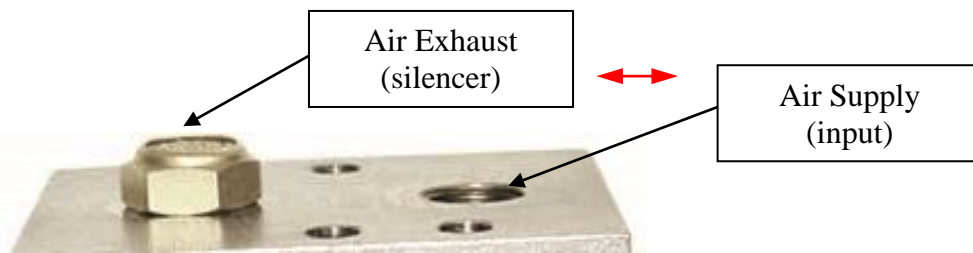
The valves should not stand burdens or efforts that should be carried by the pipe, which is why it is recommended to have a good alignment and parallelism of the pipe.

We recommend the use of filters on the pipes to extend the lifespan of the valves.

## 3.3) Pneumatic Connection

The orifice for air feeding to the valve is G 1/8".

**IMPORTANT:** The supply air to use must be **CLEAN and DRY**.  
Respect the minimum and maximum supply pressure (4 – 8 bar)



### 3.4) Change of default position from N.C. to N.O.

If you need a Normally Open (N.O.) position instead of Normally Closed (N.C.), you just have to invert the position of the spring and feed the air through the other G1/8" hole. Proceed as detailed below:

- 1- Prepare a clean work area and suitable tools for mechanical tasks.
- 2- Carefully unscrew Cap #11 (the spring is slightly prestressed).
- 3- Extract Piston #5 and Spring #4.
- 4- Gently re-insert Piston #5 and then Spring #4 (reverse order).
- 5- Screw Cap #11 back on so that it guides Piston #5 inside. Be careful not to pinch the O-Ring #10.
- 6- Invert the position of the Silencer. Now the air is supplied through the other hole.

## 4) Operating Instructions

### 4.1) Use

Before turning on the equipment, you must always take into account the Technical Specifications and never exceed the values of the Feeding Limits. .

Never touch the valve and/or pipes that are in contact with the surrounding fluid when the process is active, since burns may occur.

- Operation medium: Dry or lubricated air, or inert non-corrosive gas.
- Air supply: 4 Bar (60 PSIG) to 8 Bar (120 PSIG) maximum.
- Working temperature: Standard  $-20^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$ .
- Working environment: Suitable for internal use or outdoors applications.

### 4.2) Special Conditions

- The operation of the valve in extreme temperature conditions exceeding the design limits may damage internal and external parts, and it might be potentially hazardous for the operating or maintenance personnel.
- The operation of the valve in extreme pressure conditions exceeding the design limits may cause a malfunction of the actuator and the spontaneous breakage of parts and, therefore, might be potentially hazardous for the operating or maintenance personnel.

## 5) Maintenance Instructions

This **product** does not require any kind of maintenance.

If any internal part has been damaged, contact Genebre, S.A. to assess the possibility of repair.

## 6) Repairing Instructions

This type of valves, due to their easy assembling and reduced production cost are not worth repairing, because most of the times is simply not cost-effective, so we recommend to directly replace it.



**Before disassembling the pipe's valve to clean or replace it, make sure that line has been closed and depressurized because a bad operational procedure could cause a serious accident to staff and installation system**



**Before installing new valve, check if it meets the requirements of the valve being replaced.**

## 7) Hygiene and Safety:

When handling any kind of element, the appropriate safety measures should be taken, and it is recommended to use personal protection elements:

- 1) Use eye protection.
- 2) Use proper gloves and work clothes.
- 3) Use protective footwear.
- 4) Use a helmet.
- 5) Be sure there is running water available.



Genebre Building. Av. de Joan Carles I, 46-48  
08908 L'Hospitalet de Llobregat. Barcelona (Spain)  
genebre@genebre.es - www.genebre.es

---