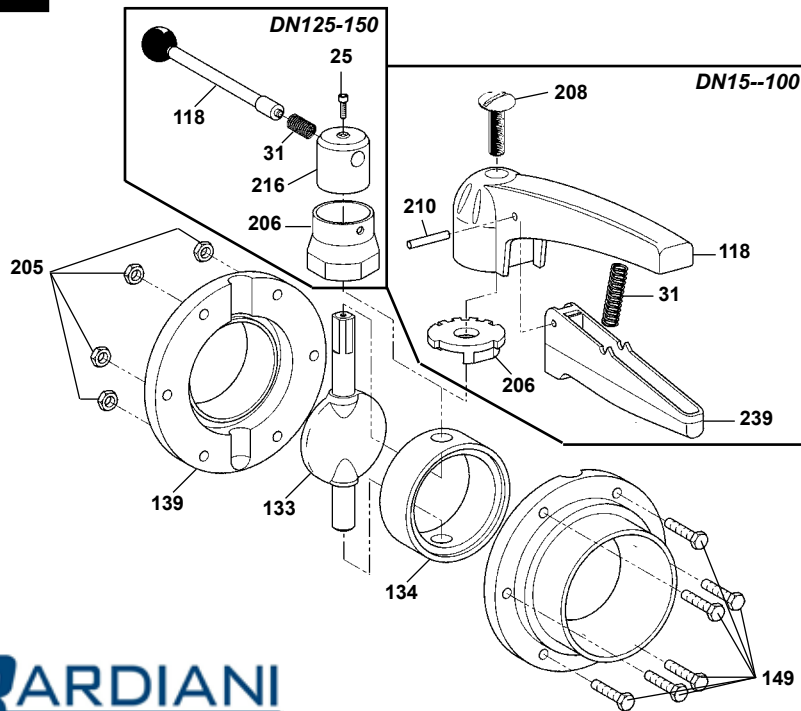


# MANUAL BUTTERFLY VALVES

INSTALLATION - USE - MAINTENANCE



VVF



GB-IST-VVF-0413

Pos.	Denomination	Quantity	Material
25	BOLT		
31	SPRING		
118	HANDLE		
133	BUTTERFLY VALVE		
134	GASKET		
139	CASING		
149	BOLT		
205	NUT		
206	HANDLE POSIT. COLLAR		
208	BOLT		
210	PARALLEL PIN		
216	HUB		

#### GENERAL WARNING

**-The manual butterfly valve model "VVF" not being safety valves cannot be used for the interception of explosive substances, inflammables, toxic or combustible products.**

-They must be used within the specified pressure ratings for this type of valve.

-Read carefully the enclosed manual before installing, use and maintenance of the said valve

-Operators who come into contact with the valves must wear the appropriate protective clothing including gloves and safety glasses.

-The installation of the valve must be carried out exclusively by specialised personnel following the instructions in the manual on installation and maintenance.

-Should there be a delay for a certain period of time from when the valve was purchased to the installation of the valve, keep the valve covered in a place out of harm and away from atmospheric agents until the installation.

-Do not use parts of the valve for other uses than those it was designed for.

-Make sure that all persons involved in the use of the valves have been trained and know well all the relative instructions in this manual

-Before starting the commissioning process make sure that all object, tools and various objects that could possibly disturb the operation of the valve have been removed.

-Do not permit unqualified persons to carry out maintenance and make sure that personnel involved know well the section in the manual regarding maintenance procedures.

-Always use original spare parts from "BARDIANI VALVOLE S.P.A." when replacing damaged or worn parts.

The use of spare parts made by the customer or third parties may cause irreparable damage to the installation and it's personnel.

The manual includes a full list of original spare parts.

**For further information please contact The Technical Office at "BARDIANI VALVOLE S.P.A."**

Example of suggested CIP		
Step	Temperature °C	Cip product
First rinsing	Atmosphere	Water without chlorine or chlorids
Washing	70°	Soda (NaOH) at 1%
Intermediate washing	Atmosphere	Water without chlorine or chlorids
Washing	70°	Nitric acid (HNO3) at 0,5%
Final rinsing	Atmosphere	Water without chlorine or chlorids

Recommended claning speed = 2 m/s

**HANDELING**

Based upon the weight of the valve it is necessary to use the appropriate carrying and restraining equipment (mobile crane, fork lift, pump truck, etc.)

**INSTALLATION**

The valve must be fitted to the installation in such a way as not to cause flexing or torsion loads due to the weight of the valve. It is advised to connect to the installation using tube work and materials at least consistent with the characteristics equal to the valve itself.

**USE**

The opening and closing of the valve must be done slowly in order to avoid shock waves /air locks in the installation in which the valve is fitted.

**MAINTENANCE!**



**Make sure before carrying out any maintenance work that the installation to which the valves are connected is isolated, and that there are no liquids remaining, and that the installation is not pressurised.**

The normal maintenance consists of the replacement of the seals present within the valves.

**PLANNED MAINTENANCE**

PLANNED MAINTENANCE	VALVE GASKETS
Preventive	Replace after 12 months
In case of leakage	Replace at the end of the day
Periodical	Check for correct operation and absence of leakage Record all actions taken

**PROBLEM**

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
External leakage	Worn out gasket	Repalce gasket
Internal leakage with closed valve, caused by normal wear		
External leakage	Too high pressure	Repalce with gasket of different elastomer type
	Too high temperature	
Internal with closed valve occuring earlier than normal wear	Aggressive fluids	Modfy opeation conditions
	Too many active control	
Difficult opening	Incorrect elastomer type of gaskets	Replace with gasket of different elastomer type

**SCRAPPING AND DISPOSAL**

For the scrapping of the valve proceed as follows:

- Disassemble all the valve's components in order to separate it's materials.
- Before starting the mechanical scrapping procedure wash carefully all the parts of the valve.

The principal parts of the valve are:

VALVE BODY:    AISI 316L (4404)  
SHUTTER:    AISI 316L (4404)  
ELASTOMETER:                                        EPDM, FKM, SILICONE



**For the scrapping of the valve the above listed materials are subject to the individual laws governing of the countries in which the valves are to be scrapped.**

<b>VALVE SPECIFICATIONS:</b>	
- Max. working pressure :	10 bar (145 psi) DN15--100 8 bar (115 psi) DN125 6.5 bar (94 psi) DN150
- Min. working pressure :	Vacuum
- Max. product temperature :	120 °C (284 °F)
- Min. product temperature :	-10 °C (14 °F)
- Material in contact with the product :	AISI 316L (1.4404)
- Gasket in contact with the product (FDA homologation):	EPDM, FKM, MVQ(silicon), HNBR (other seals available upon request).
- Finish on surfaces in contact with the product :	Ra 0.8 µm (other types of surface finish upon request).

### **Machinery Directive 97/27/EEC**

(valve sizes DN15--25 are not included in accordance with Article 3 paragraph 1.3:

Valves intended for gases, liquified gases, gases dissolved under pressure, vapours and those liquids whose vapour pressure at the maximum allowable temperature is greater than 0,5 bar above normal atmospheric pressure (1013 mbar) within the following limits:

- For fluids in Group 2 with a DN greater than 32.

- Valve size DN125--150 only for fluids in Group 1 or 2 - valves intended for those liquids whose vapour at the maximum allowable temperature is lower or even than 0.5 bar within the normal atmospheric pressure (1013mbar).

Foreword

**This "Instruction, Use and Maintenance Manual" forms an integral part of the valve.**

**Before proceeding with installation, use or maintenance of each type of valve it is compulsory to read and understand this manual.**

**Keep this manual for future reference.**

**When using valves which comply with ATEX Directive 94/9/EC (ATEX) it is compulsory to read the relative manual.**

This "Instruction, Use and Maintenance Manual" has been drawn up expressly for expert technical personnel. Consequently any information which can easily be deducted from reading the text and/or examining the illustrations and/or drawings provided herein shall not be the object of further explanation.

It being understood that the essential characteristics of the valve type described herein shall remain the same, the manufacturer reserves the right to amend and/or integrate and/or update the data and/or information relative to use of the valve provided in the "Instruction, Use and Maintenance Manual", at any time and without prior notice.

The latest, updated version of the "Instruction, Use and Maintenance Manual" is always available at [www.bardiani.com](http://www.bardiani.com).

The manufacturer shall not in any way be held liable for any consequences resulting from failure to observe all the prescriptions provided in the relative manual concerning installation, use, maintenance and care of the product.

All rights are reserved. It is forbidden, without due written authorization from the manufacturer, to copy totally and/or partially and /or transfer and/or record any part of this "Instruction, Use and Maintenance Manual" using any means and/or support, including IT and/or electronic and/or mechanical and/or paper form or any other means or system for recording and/or reusing the information contained herein for any purposes other than for the purchaser's personal use.

### **Warranty**

#### **1. VALIDITY**

Bardiani Valvole S.p.A. guarantees its own products against any design and/or construction and/or material defects and/or faults for a period of 12 (twelve) months from the date of delivery.

Notification of any product defects and/or faults must be sent in writing to Bardiani Valvole S.p.A. within 8 (eight) days of coming to light, providing adequate documentation of the defect/fault encountered can be provided as evidence.

Any repairs made during the warranty period do not extend said period over the stipulated 12 (twelve) months which remains definite.

#### **2. CONTENTS OF THE WARRANTY**

This warranty it to be intended as limited, at the discretion of Bardiani Valvole S.p.A., to the repair and/or replacement of the product and/or part of the product and/or its components which is/are found to be defective due to design and/or manufacturing and/or material faults.

In the event of repair and/or replacement of the product and/or any one of its parts and/or components, any returned item/s shall become the property of Bardiani Valvole S.p.A and the relative shipping costs shall be at the expense of Bardiani Valvole S.p.A.

Bardiani Valvole S.p.A., shall be under no obligation to compensate for any immaterial and/or indirect damages and shall in no way be held liable for consequential damages and/or losses, such as (by way of example only), damages due to loss of business, contracts, opportunities, time, production, profits, goodwill, image etc..

No retailer or distributor or dealer or agent or representative or employee or person appointed by Bardini Valvole S.p.A. is authorized to make any amendments and/or integrations and/or extensions to this warranty.

#### **3. EXCLUSIONS FROM THE WARRANTY**

All purchaser rights, as established and recognized by law being understood and unaffected, elastomers and electrical components are expressly excluded from this warranty.

This warranty does not cover design faults whenever a product is built by Bardiani Valvole S.p.A. based on designs and/or technical specifications provided by the purchaser.

This warranty also does not cover:

- faults and/or defects resulting from incorrect and/or unsuitable and/or improper transport,
- faults and/or defects resulting from installation of the product which fails to observe the indications provided in the "Instruction, Use and Maintenance Manual" or in any case caused by incorrect and/or unsuitable and/or improper installation,
- faults and/or defects resulting from use and/or maintenance operations and/or storage of the products which fail to observe the prescriptions provided in the "Instruction, Use and Maintenance Manual" or in any case which are incorrect and/or unsuitable and/or improper,
- faults and/or defects ascribable to normal wear and tear of the product and/or its parts and/or its components,
- faults and/or defects in the product and/or its parts and/or its components whenever interventions and/or repairs have been performed by persons not authorized by Bardini Valvole S.p.A. and/or who are not suitably qualified,
- faults and/or defects in the product and/or its parts and/or its components ascribable to it being dropped and/or banged and/or dented and/or misuse and/or tampering and/or breakage and/or accidents caused by negligence and/or lack of care by the purchaser and in general for any causes not ascribable to design and/or manufacturing and/or material defects,
- faults and/or defects in the product and/or its parts and/or its components ascribable to negligence and/or carelessness and/or lack of care by the purchaser,
- faults and/or defects in the product and/or its parts and/or its components caused by other events outside the control of Bardiani Valvole S.p.A. or determined by force majeure or mishap.

### **Recommendations**

**1. All the information, indications, statements and technical details provided herein are based on test data which Bardiani Valvole S.p.A. holds to be reliable but which cannot be expected to cover every possible use of the product.**

**2. The illustrations and drawings provided are all indicative and are not binding, consequently they may not fully match the real appearance of the products.**

**3. Being as the conditions of product use and applications cannot be controlled by Bardiani Valvole S.p.A., the purchaser must ascertain suitability of the use he intends to make of the product beforehand and assume all risks and liabilities which may result from the same.**

**4. Customers are strongly advised to consult Bardiani Valvole S.p.A.'s technical-commercial collaborators to request any specific information concerning the technical characteristics of the products.**

**5. The information provided in this document refers to standard production Bardiani Valvole S.p.A. products and therefore cannot be considered a basic reference for products built to meet specific requirements.**