



# INSTRUCTION MANUAL

Brass cylinder valve or container valve for  
Refrigerants with double o-ring seal  
**VALVE SERIES F112/F113**  
(Art.F50xxxxxx)

**NT-F50**  
Rev.: 6  
29/08/2012  
Page : 1 / 6

## S U M M A R Y

1. DESCRIPTION .....	1
2. GENERAL SAFETY INSTRUCTIONS .....	1
3. TECHNICAL DATA.....	2
4. INSTALLATION INSTRUCTIONS AND HANDLING.....	2
5. MAINTENANCE .....	4
6. GENERAL CONDITIONS.....	4

ONLY THOSE PERSONS WHO HAVE READ THESE TECHNICAL INSTRUCTIONS THOROUGHLY AND UNDERSTAND THEM COMPLETELY SHALL BE AUTHORIZED TO USE THIS PRODUCT.

### **IMPORTANT NOTICE**

If this product is being purchased or used for incorporation into another product (for example, a compressed gas valve for incorporation into a compressed gas cylinder), then **CEODEUX S.A. CRYOTEC** reminds the end product manufacturer that any and all product user warning, instructions or product labels are the responsibility of the end product manufacturer.

## C O N T E N T

### **1. DESCRIPTION**

This **Valve** is intended and approved for installation in **gas cylinder and gas container**. This PRODUCT is not intended for any other installation or purpose. If the product user has any question regarding this PRODUCT's proper application or purpose, the product user should call **\*352-327832-1**. Any non-approved use or application and/or any non-approved modification of the PRODUCT or its use or application may result in a serious accident or personal injury for which **CEODEUX S.A. CRYOTEC** will not be responsible.

### **2. GENERAL SAFETY REQUIREMENTS**

- All users must comply fully with all national or local laws, rules or regulations in force.
- Anyone using this product must be thoroughly familiar with these instructions and other applicable product instructions and manuals.



**WARNING**

This cylinder/container valve is a component part designed for use with gas cylinder and gas container, with brass cylinder/container valve for use with Refrigerants with double o-ring seal. The final manufacturer is responsible

for preparing appropriate and adequate instructions and warnings for the ultimate product user.

- The maintenance instructions outlined below should be incorporated into any product manual or instruction label.
- Failure to follow any instruction or warning within this instruction manual or on any product label may result in a serious accident involving either personal injury, property damage or both.



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29/08/2012  
Page : 2 / 6

## 3. TECHNICAL DATA

All the significant characteristics (tightening torque) are to be boldfaced, as for all the references to standards.

Gas service	Refrigerants.
Working Pressure	45 bar / 650psi
Service temperature	-20°C up to +70°C / -13°F up to +158°F
Seat orifice size	18 mm
Closing torque	Max. 7 Nm
Standards	EN ISO 10297, TRG
Connection	According (inter-)national standards and Customer's specifications
Valving torques	According to EN ISO 13341 or CGA V-1
Body	Brass
Wrench size	34mm
Marking	Manufacturing date , 3 stars, valve part number, valve inlet, valve outlet, TT0029 (if according to TPED)
O-ring	CR (Neoprene)
Seat	Polyamide (PA6.6)
Hand wheel	Polyamide (PA6)
If equipped with a PRV (pressure relief valve):	Yes
Standards	CGA S-1.1 – TRG 254 – BS 341-4 – AS 2613 – JIS B 8246
PRV-Gasket	CR (Neoprene)
Spring	Stainless steel

Subject with modification without preliminary opinion

## 4. INSTALLATION AND HANDLING INSTRUCTIONS

### 4.1. Generality

- Before first installation, check the condition of the valve (cleanness, condition of the threads).
- Most malfunctions of the valve are caused by the intrusion of particles, dust or other contamination.
- Comply with the EN ISO 13341 or CGA V-1 when connecting the valve to the cylinder/container.
- Without the previous written consent of our technical department, any other use is not allowed.
- Use only materials in perfect condition and compatible with refrigerants and in accordance to the specified operating pressures and the desired flow rates.
- The customer must ensure the traceability of the products after assembly.
- The customer must inform us about any incidents and must supply us any defective valve for checking and analysis.
- The valves must be stored in a dry place at room temperature, in their original packaging.
- The valves must not be exposed to any violent shocks: a deformed or damaged valve must not be used (always use gas cylinders or gas containers with neck ring or protection cap).
- Never heat a valve on a naked flame.
- Do not alter the markings.
- **CEODEUX S.A. CRYOTEC** accepts no responsibility when the product is used in any other applications for which it has been ordered.
- The customer is responsible for any accidents and bodily injuries, material or immaterial, direct or



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Page : 3 / 6

indirect, resulting from improper assembly or inadequate maintenance.

- The customer must ensure an appropriate transport and handling of the product.

**CEODEUX S.A. CRYOTEC** accepts no responsibility when the product is transported or handled in inappropriate conditions and especially when its original packaging has been damaged or destroyed. In that case the customer must inform **CEODEUX S.A. CRYOTEC**

- The valve under pressure must be removed from any ignition sources (sparks or smoking persons, etc.).
- It is the responsibility of the Gas company personnel to ensure the cleanliness of the cylinder/container. The cylinder/container must be kept free of grease and plastic or metallic particles.
- The valves and the cylinder/container must be placed on a stable place.
- For transportation, the valves shall be guarded (ref. EN ISO 11117).
- The valve shall never (i.e. during use, cylinders cleaning, cylinder/valves leak tightness checking etc.) be in contact, neither externally or internally, with any agent initiating stress corrosion on the components valve.

## 4.2. INSTALLATION

- **Only use cylinder/container with neck ring or protection cap**
- Before installation, check the cleanliness of the threads and sealing surfaces, and check if the threads and sealing surfaces are not damaged.
- Screw the valve in the cylinder or container. Comply with the recommended installation procedure acc. to EN ISO 13341, or national or local regulations.
- Tighten with Torque Wrench (wrench size: 34 mm)
- Torque see n°3. This might vary depending on sealant. After installation, pressurize, check for leaks and adjust torque accordingly.
- **Do not OVERTORQUE !!!**
- Check for leaks by approved method.

## 4.3. FILLING

- Connect the correct filling device.
- Open the valve. Turning left the hand wheel insures the opening of the valve.
- Fill the cylinder/container acc. applicable safety regulations (ref.: **ADR, DOT, TC, CFR**).
- Close the valve. Turning right the hand wheel insures the closing of the valve at a maximum closing torque of 7Nm.
- Depressurize and unscrew the filling device.
- Check the Leak tightness cylinder/valve.

## 4.4. USE

- Connect your equipment to the outlet connection, by using the correct connector.
- Open the valve open/close slowly to prevent any shocks.
- Do not overtorque.
- Close the valve after use.

## 4.5 .HANDLING INSTRUCTIONS

- **Only use cylinder/container with neck ring or protection cap.**
- Max. Recommended closing torque of 7 Nm under normal service conditions.

**Caution: Overtorquing the valve will considerably reduce the lifetime.**



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Rev.: 6  
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Page : 4 / 6

Malfunction	Cause	Action
Filling of the cylinder/container not possible	Valve closed or not completely opened	Open valve completely
	Particles in the valve	Clean the valve before use
	Valve defective	Return valve cylinder/container to the gas company/manufacturer
Connection to the valve's outlet not possible	Connection incompatible with the filling/withdrawal equipment	Use correct filling/withdrawal connection for the used gas
	Valve and/or filling/ withdrawal connection damaged	Change filling/withdrawal connection or return valve to the manufacturer

## 5. MAINTENANCE

The warranty foreseen in our general conditions of sale does not cover the following:

- Repair or replacement due to normal wear or damage during routine maintenance.
- Damage to components whose fragility is for technical reasons unavoidable and determined by product design.
- Damage from not following recommended maintenance and procedures, as outlined in this instruction manual.
- Damage arising from modifications not included in the procedures in this instruction manual.
- Damage resulting from the use of an unauthorized part, supplied, manufactured or modified by procedures not included in this instruction manual.

Failure to follow the installation instructions and handling instructions may cause an accident or personal injury, for which **CEODEUX S.A. CRYOTEC** declines any responsibility.



Maintenance, repairs and reconditioning of the PRODUCT are under the responsibility of the user or the operator. Anyone attempting to maintain, repair or conditioning the PRODUCT must be thoroughly familiar with Compressed Gas Association Standard CGA V-9 and EN ISO 22434 and all other standards and regulations referenced therein.

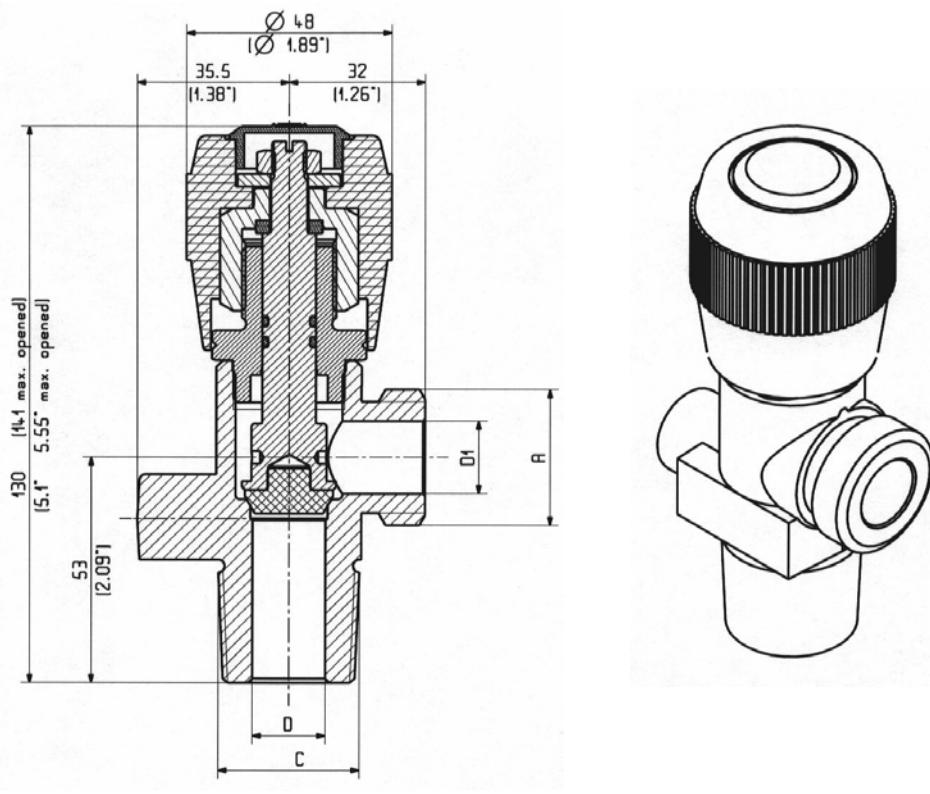
According to this norm maintenance, repair and/or reconditioning shall be performed by properly trained personal.

In case of incident or complaint, the user has to send back the supposed defective product to the manufacturer **CEODEUX S.A. CRYOTEC** securely packed. In order to preserve the warranty, the user will not execute any intervention on the product (disassembling, repair, modification...) without our written agreement.

## 6. GENERAL CONDITIONS

- 6.1. Because of a policy of continuous product improvement, **CEODEUX S.A. CRYOTEC** reserves the right to change designs and materials as well as specifications and product informations without notice.
- 6.2. **CEODEUX S.A. CRYOTEC** preserves completely the intellectual property of their projects, studies and in general on all documents forwarded to their customers : it is not permitted to communicate, to execute or to use these documents in any way without their written authorisation.
- 6.3. This instruction manual is a part of the sales contract and is subject to the general terms of sale.

**SERIES F112 (Basic)**  
(Art. F50xxxxxx)



**SERIES F113 (Basic)**

(Art. F50xxxxxx)

