Art.150OX

Two ways nickel plated brass ball valve with weld fittings, degreased for oxygen use, with black lever

ST150OX/EN_00/24

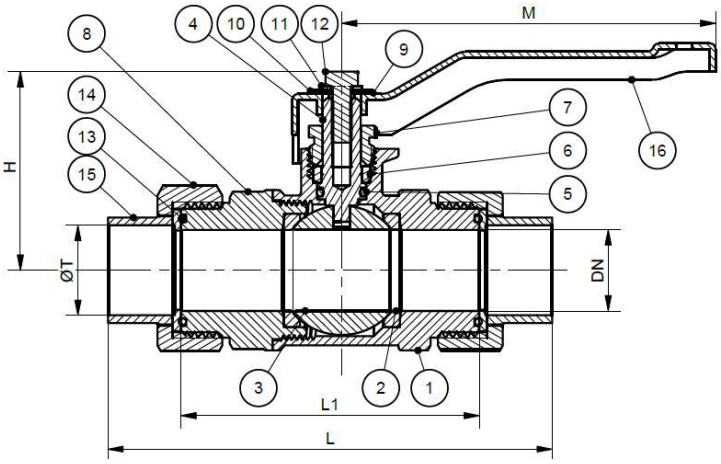
USE

Ball valve with weld fittings, DEGREASED, for OXYGEN and MEDICAL GAS distribution systems.

- Testing 100% according to the standard EN12266-1
- Production process complaint with EN ISO 9001
- Requirements for oxygen use according with EN ISO 13485

COMPONENTS AND DIMENSIONS

Ref.	Component	Material	Q.ty
1	Body	EN12420-CW617N-nickel plated	1
2	Seat	PTFE	2
3	Ball	EN12420-CW617N-chrome plated	1
4	Steam	EN12164-CW617N	1
5	O-ring	VITON	1
6	Gasket	PTFE	1
7	Antiscuff nut	EN12164-CW617N	1
8	End connection	EN12420-CW617N-nickel plated	1
9	Washer	Stainless steel A2	1
10	Washer OX	Aluminium EN572/3	1
11	Washer	Stainless steel A2	1
12	Screw	Stainless steel A2	1
13	O-ring	Siliconico VMQ	2
14	Nut	EN 12165 CW617N nickel plated	2
15	Weld fitting	EN 12164 CW617N	2
16	Lever	EN10204-DD12-painted	1



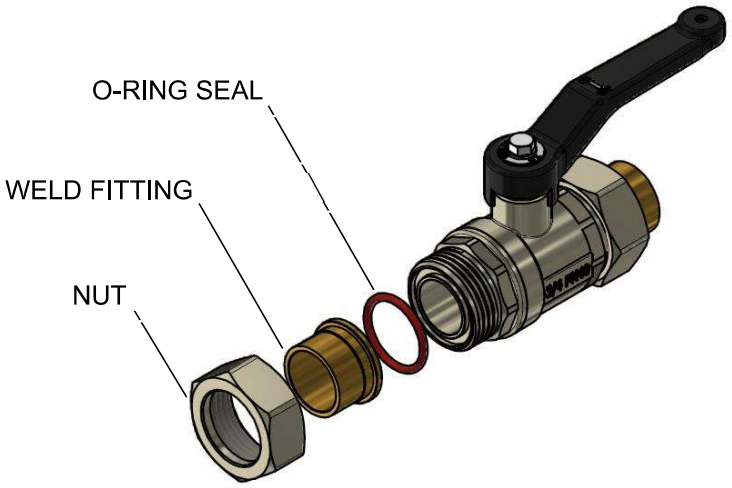
Art.	150OX1210	150OX1212	150OX1214	150OX1215	150OX1216	150OX3422	150OX122	150OX128	150OX11435	150OX11242	150OX254
DN	15	15	15	15	15	20	25	25	32	40	50
ØT	10	12	14	15	16	22	22	28	35	42	54
L	91,5	91,5	91,5	91,5	91,5	110	130	130	146	163	182
L1	59,5	59,5	59,5	59,5	59,5	74	84	84	92	109	122
H	46	46	46	46	46	49	55	55	72	78	84
M	93	93	93	93	93	93	115	115	150	150	150
PN	20 OXYGEN USE - (40 GENERIC USE)										

Art.150OX

Two ways nickel plated brass ball valve with weld fittings, degreased for oxygen use, with black lever

ST150OX/EN_00/24

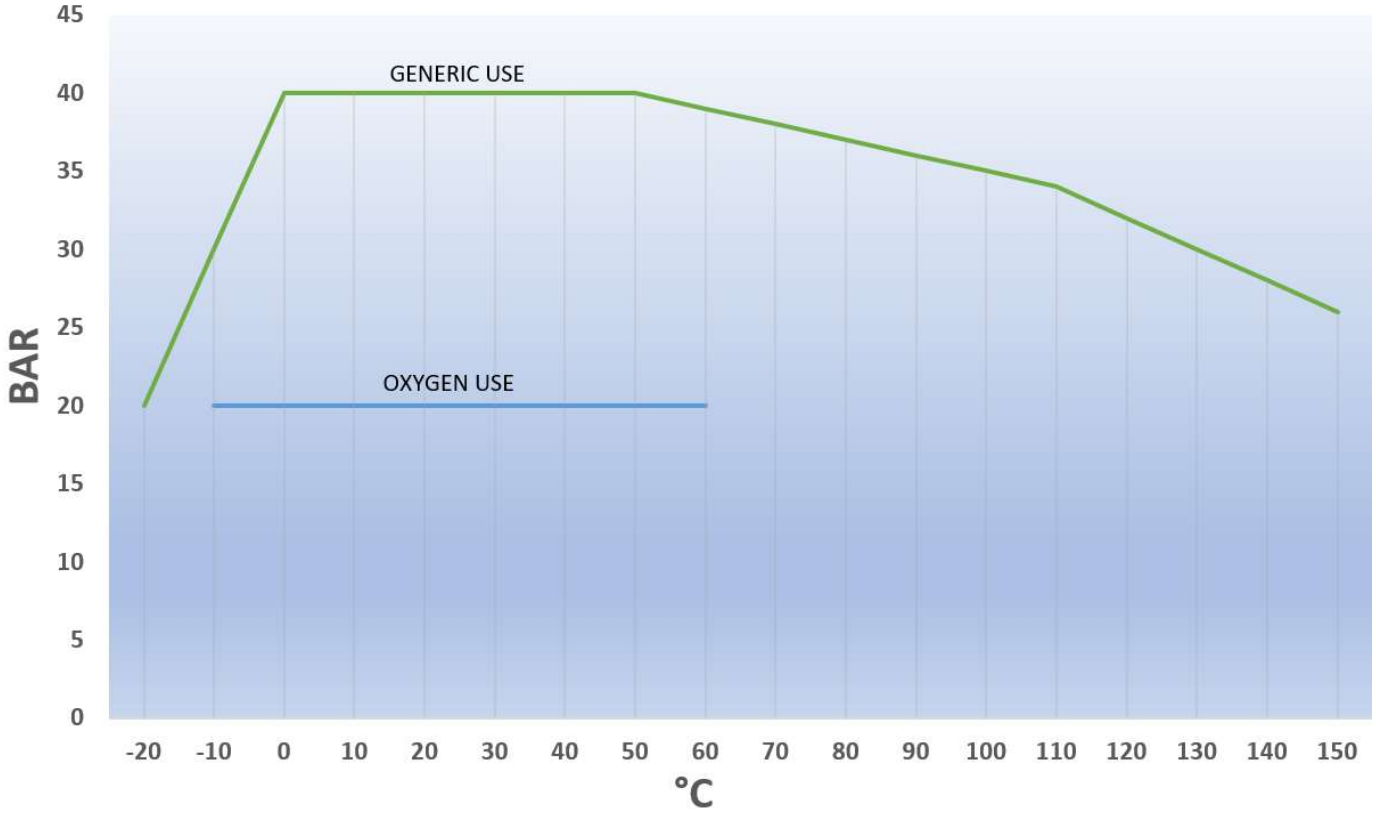
TECHNICAL FEATURES



-	Valve ends:	With weld fittings with O-ring seal and nut
-	Nominal working pressure:	Oxygen use PN20 bar *Generic use PN40 bar*
-	Operating temperature:	Oxygen use -10<T<+60°C *Generic use -20<T<+150°C*

(see Pressure/Temperature chart and operating instructions)
Below 0°C only in the absence of ice or with antifreeze additives (max 50%). Above +100°C only in the absence of steam

PRESSURE/TEMPERATURE DIAGRAM



ASSEMBLY, USE AND MAINTENANCE INSTRUCTION

IN ACCORDING TO DIRECTIVE PED 2014/68/EU

EQUIPMENT PRESSURE DESCRIPTION: TWO-WAY BALL VALVE, WITH BRASS BODY FLOATING BALL

da DN 1/4" a DN 2"	**DANGEROUS FLUIDS, GROUP 1, TAB. 6**

USE

For the valves from DN 1/4" to DN 2" the intercepted fluids can be dangerous fluids of group 1 (including substances and mixtures as defined in Article 2, paragraphs 7 and 8 of Regulation EC no. 1272/2008, classified as dangerous in accordance with the classes of dangerous physical or health re. Annex I, parts 2 and 3 of that Regulation).

In addition, the intercepted fluids must be compatible with the materials used for the construction of the valves: brass, PTFE, PTFE reinforced with carbon graphite, FPM, EPDM, NBR, FKM.

In particular, comburent gases, gases under pressure (including compressed gases, liquefied gases, dissolved gases and refrigerated liquefied gases) and flammable liquids can be used.

Mixture with water and antifreeze liquids (glycol) max. 50%.

Do not use unstable-self/reactive substances or mixtures (as defined in Regulation EC no. 1272/2008 § 2.8).

THE MAX PRESSURES IN ACCORDING TO THE WORKING TEMPERATURES ARE THE FOLLOWING:

FOR USE WITH OXYGEN THE MAX PRESSURE IN ACCORDING TO THE WORKING TEMPERATURE IS THE FOLLOWING:

MAX 20 bar at 60°C from DN 1/4" to DN 2"

- for valves with forged bodies in according to the EN 12420 standard

For valves with the following DN ¼", ⅜", ½", ¾",1",1 ¼",1 ½",2".	
temperature °C	Ball seals
-20 °C ÷ +150 °C	PTFE
+150 °C ÷ +180 °C	PTFE reinforced carbographite

WARNING!
IT IS USEFUL TO EMPTY THE BALL VALVE AND THE SYSTEM COMPLETELY WHEN THE INTERCEPTED FLUID COULD SOLIDIFY AT TEMPERATURES LOWER THAN 0°C (FOR EX., WATER) AND INCREASE ITS VOLUME DAMAGING ITS SEALING.

ASSEMBLY

The installation of the valve on the system occurs by welding the pipes to the valve fittings.
This procedure must be carried out by qualified personnel.

To seal the threadings use a dope compatible with the intercepted fluid without exceeding to avoid unuseful efforts when assembling.

Screw with a suitable wrench on the octagonal / hexagonal part of the valve body.

CAUTION: *Applying too much clamping force and a wrong handle can cause damage to the valve and compromising correct operation.*

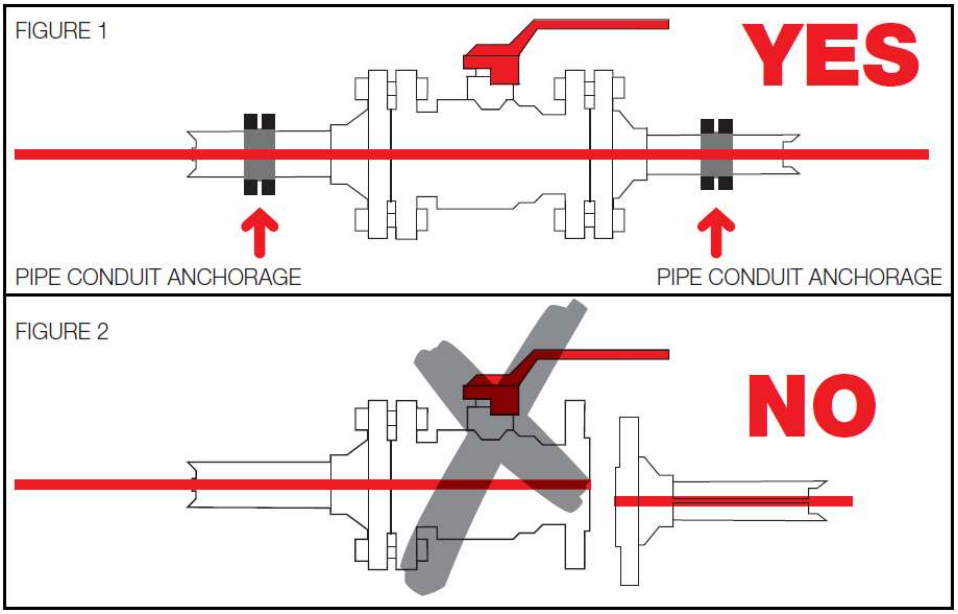
After installing make sure the valve does not undergo stresses due to an exceeding anchorage distance or to unparallel pipes, then, support the pipes with the proper clamps.

The valve must be manoeuvred exclusively with the lever handle supplied with the kit without using any other supplementary lever handles.

Turn the lever handle by 90° clockwise to close the valve until it reaches its beat.
Turn the lever handle by 90° anticlockwise to open the valve until it reaches its beat.
The ball valve must always be fully open or fully closed.
Any intermediate position of the valve may cause long-lasting bucklings of the tightness seats which make the intercepted fluid leak.

To avoid water hammering on the pipes manoeuvre the valve by a gradual rotation.

When testing the systems never use pressures higher than the nominal pressure shown on the valves; that could buckle the seats and the gaskets and damage their sealing irremediably.



MAINTENANCE

Every six months check the valve visually to verify there are no defects that may cause problems when using it and, if the case, replace it.
Before acting on the valve make sure that the pipes are not under pressure.
We are not responsible in case of tampering of our valves without our authorization, in this case the warranty expires.

WASTE DISPOSAL

After replacement of the valve, it must be disposed according to the laws (about the waste disposal) of the Country of destination. The waste (disused valve) can also be identified as recyclable material.

In according with the latest directives of the Reach Regulation, Idrosfer articles who contain a concentration higher than 0.1% (w/w) of SVHC substances - specifically LEAD - **have been notified in the SCIP database of the ECHA Agency**.
These notifications can be consulted at the following link:
https://echa.europa.eu/it/scip-database
or contact us for more details.

List of incompatible substances

Many chemical substances react in a dangerous way when they come in touch with others.

Please find below a list of the main incompatible substances, by way of a non-limiting example.

Acetylene	with copper (piping), halogens, silver, mercury and their compounds
Acetone	with concentrated mixtures of sulphuric and nitric acid
Acetic acid	with chromic acid, nitric acid, hydroxyls, ethylene glycol, perchloric acid, peroxides and permanganates
Chromic acid	with acetic acid, naphthalene, camphor, alcohol, glycerol, turpentine and inflammable fluids
Nitric acid	with acetic, chromic and cyanogenic acid, aniline, carbon, hydrogen sulphide ,fluids, gases and substances that are promptly nitrated
Oxalic acid	with silver and mercury
Perchloric acid	with acetic anhydride, bismuth and its alloys, alcohol, paper, wood, fats and other organic substances
Hydrogen sulphide	with nitric acid and oxidants
Sulphuric acid	with chlorates, perchlorates, permanganates and water
Alcohols and Polyols	with nitric acid
Anhydrous ammonia	with mercury, halogens, calcium hypochlorite and hydrogen fluoride
Ammonium nitrate	with acids, metal powders, sulphur, combustible materials
Aniline	with nitric acid and hydrogen peroxide
Silver	with acetylene, oxalic acid, tartaric acid and ammonic compounds
Arsenic (materials containing it)	with any reducing agent
Azidos	with water
Chlorine dioxide	with ammonia, methane, phosphine, hydrogen sulphide
Bromine	with ammonia, acetylene, butadiene, butane, hydrogen, sodium carbide, turpentine and finely pulverized metals
Activated carbon	with all oxidizing agents, calcium hypochlorite
Cyanides	with acids and alkali
Chlorates	with ammonia salts, acids, metal powders, sulphur, finely pulverized organic and flammable compounds and carbon
Chlorine	with ammonia, acetylene, butadiene, petrol and other by-products of oil, hydrogen, sodium carbide, turpentine and finely pulverized metals
Chloroform	with sodium and potassium
Chlorides	with sulphuric acid
Dichloromethane	with sodium and potassium
Chlorine dioxide	with ammonia, methane, phosphine, hydrogen sulphide
Fluorine	with all other chemical substances
(White) phosphorus	with air, oxygen, alkali, reducing agents
Hydrocarbons in general	with fluorine, chlorine, formic acid, chromic acid, sodium peroxide
Hydrogen sulphate	with nitric acid vapours and oxidizing gasses
Iodine	with acetylene and ammonia
Hypochlorite	with acids, activated carbon
Flammable fluids	with ammonium nitrate, chromic acid, hydrogen peroxide, nitric acid, sodium peroxide and halogens
Mercury	with acetylene, fulminic acid, hydrogen
Alkaline metals (e.g. calcium potassium, sodium)	with water, carbon dioxide, carbon tetrachloride, and other chlorinated hydrocarbons
Ammonium nitrate	with acids, metal powders, flammable fluids, chlorates, nitrates, sulphur and finely pulverized organic substances or flammable compounds
Nitrites and Nitrates	with acids
Nitroparaffin	with inorganic bases, amines
Calcium oxide	with water
Oxygen	with oils, fats, hydrogen, flammable fluids, solids and gasses
Phosphorus pentoxide	with water
Potassium perchlorate	with sulphuric acid and other acids.
Potassium permanganate	with glycerol, ethylene glycol, benzaldehyde and sulphuric acid
Hydrogen peroxide	with chromium, copper, iron, most other metals and their salts, flammable fluids and other combustible materials, aniline and nitromethane
Sodium peroxide	with any oxidizable substance, such as methanol, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulphide, glycerol, ethyl acetate and furfural
Potassium	with carbon tetrachloride, carbon dioxide ,water, chloroform, dichloromethane
Copper	with acetylene, azide and hydrogen peroxide
Sodium	with carbon tetrachloride, carbon dioxide ,water, chloroform, dichloromethane
Sodium azide	with lead, copper and other metals. This compound is usually employed as a preservative, but it forms unstable and explosive compounds with metals
Selenium	with reducing agents
Sulphides	with strong acids
Carbon tetrachloride	Sodium, potassium