FRABO

TECHNICAL DATA SHEET

# SOLARPRESS

COPPER AND BRONZE PRESS FITTINGS

# SOLARPRESS

Copper and Bronze press fittings

## DESCRIPTION

**SOLARPRESS** is a series of high purity copper (Cu-DHP) and bronze press fittings, with specific **FKM** sealing gasket for high temperatures (operating temperature up to 160 °C and up to 200° for short-term peaks). Suitable for pressing with "V" type jaws.

## APPLICATIONS

The **SOLARPRESS** system can be used for the following applications and temperatures, as indicated in table A

### TABLE A

| APPLICATION | Pmax (bar) | Tmax °C |
|---|---|---|
| Solar systems | 6 | 160°C<br>(peaks up to 200°C for short periods) |
| Steam | 1 | 120°C |

**For uses other than those mentioned thus far, please request the maximum operating conditions from the FRABO technical support office.**

## AVAILABLE DIMENSIONS

The series is available in the dimensions 15, 18, 22, 28 and 35 mm. For the list of available shapes refer to the catalogue.

## THREADED CONNECTIONS

Mixed connection fittings to other systems are made using bronze threaded parts with press ends. The threads comply with UNI EN 10226-1 standard.

## SUITABLE PIPES

The reference standard for the copper pipes suitable for sanitary applications is EN 1057.

The **SOLARPRESS** fittings are suitable for installation with copper pipes that comply with the above standard, in the three supply statuses reported therein (fired, semi-finished and raw) and according to the prescribed minimum wall thickness indicated in table B below.

### TABLE B

| Diameter (mm)* | 12 | 15 | 18 | 22 | 28 | 35 |
|---|---|---|---|---|---|---|
| Thickness min (mm) | 1,0 | 1,0 | 1,0 | 1,0 | 1,0 | 1,0 |
| State | Fired, Semi-finished, Raw | | | | | Raw |

## PRESSING TOOLS

The **SOLARPRESS** system can be installed with the original system tools or using tools that have been checked and declared compatible by **FRABO**.

For a full list of compatible tools, please see the documentation available on the website: www.frabo.com.

## CORROSION

The corrosion that can affect copper systems and its alloys is described in standards **UNI EN 12502-1** and **UNI EN 12502-2** to which it is necessary to refer for detailed information on the phenomenon and for the correct choice of materials during design and installation.

It is also necessary to refer to the product's technical manual.

The known types of corrosion that mainly affect copper alloys include uniform internal corrosion and bimetallic corrosion.

### INTERNAL CORROSION

Internal corrosion which can affect a copper system is connected with the characteristics of the protective oxide film that forms as soon as the material comes into contact with water.

The more this film hinders the electrochemical interaction between the water and the material, the longer the copper lifetime will be.

Copper and its alloys generally have excellent resistance to corrosion in normal conditions of use, but given the numerous factors influencing corrosion, it is only possible to speak in quality terms, leaving it up to the designer to make an objective detailed assessment of the factors themselves.

## BIMETALLIC CORROSION

The installation of different materials next to each other is a common practice envisaged by the above legislation. For copper and its alloys, there are no particular bimetallic corrosion problems in the event of installation with stainless steel parts.

However, the same cannot be said for mixed installation with zinc-plated steel products. In this case, it is necessary at least to ensure that the copper section of the system is connected downstream from the steel part with respect to the water flow.
On these occasions, it is also important to consider that the speed of the corrosion and therefore its negative effect on the system is a function of the mass and surface area ratio between the noble and the less noble material. Hence, whereas when a small part made of copper or copper alloys is inserted in a zinc-plated steel system, it has no effect, the opposite cannot be said to be true.

**The designer and/or installer is responsible for choosing and applying the corrosion resistant protection and for evaluating the most effective protection methods in relation to the environment where the piping will be located.**

**FRA.BO S.p.A.**

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