



# THREADED FITTINGS



Comisa designs and manufactures threaded fittings for the most different applications using selected raw materials and by subjecting its products to strict production controls, according to the UNI EN ISO 9001.

## PURPOSE

The threaded fittings for iron pipe are of various shapes, combinations and sizes.

They can be used as accessories for the realization of plumbing and heating systems, in civil, industrial and conditioning systems.

They guarantee optimal couplings with all the pipes available on the market.

## ■ TECHNICAL SPECIFICATIONS

All of our fittings are available in yellow version (sandblasted) and in nickel plated version for greater protection against aggressive agents. To improve the adhesion of sealing materials, the male threads are knurled, also in order to avoid action by the installers that may damage products.

The threads are made in accordance with the UNI EN ISO 228-1 equivalent to DIN EN ISO 228-1 (cylindrical parallel thread not sealing on the thread) larger for female threads and smaller for male threads.

Adequate length of threads guarantee optimum couplings.

The fittings in three pieces are available with conical, flat and metal seal. the first has as sealing element an o-ring, the second a fiber gasket and the third the contact metal-metal.



CONICAL SEA WITH O-RING EPDM



FLAT SEAL WITH FIBER GASKET





CONICAL METALLIC



## **MATERIALS**

The copper alloys used for the production of our fittings are of high quality and found on the Italian market from major manufacturers, carefully evaluated and selected.

The materials used for the construction of our products comply with the following standards:

- UNI EN 12164 CW614N For the products made from drawn bar.
- UNI EN 12165 CW617N For the products made from hot molding

The above mentioned copper alloys are compliant with the most stringent European regulations relative to adduction, collection and distribution of water intended for human consumption; specifically they conform to:

- Decree of Ministry of Health No. 174 dated 06/04/2004 ITALY Regulation concerning the materials and objects which can be used in fixed systems of collection, treatment, feeding and distribution of water for human consumption;
- DIN 50930-6 Standard GERMANY Brass potability;
- Decree of 29 may 1997 france concerning the materials and objects which can be used in fixed systems of collection, treatment, feeding and distribution of water for human consumption.

#### O-ring

EPDM elastomeric material 70 IRHD for greater safety.

#### Gasket

Fiber material approved FDA (Food and Drugs Amministration USA).

In accordance with the Regulation 1907/2006 REACH (Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals) entered into force in the European Community on 1st June 2007 and subsequent updates, we declare that all the products we supply do not contain substances included in the list of hazardous substances (SVHC).

Maximum working pressure:

3/4" ÷ 1"

1 1/4" ÷ 11/2"

= 50 bar

= 40 bar

= 30 bar

= 25 bar

## PERFORMANCE

### THREADED FITTINGS

*Maximum working temperature:* – 20°C (with no ice) + 120°C

#### Threaded fittings in 3 pieces with Oring and gasket:

Maximum working temperarture: – 20°C (with no ice) + 120°C

# ■ INSTRUCTION INSTALLATION

It is advisable to:

- Check the integrity of the package and products before installation in order to avoid problems once the product is installed; in particular it is recommended to verify the presence and integrity of the seals which must be in good condition, ie, with no injuries that could compromise its functionality;
- Use suitable tools in order to avoid damaging the fittings;
- · Cut the pipe perpendicular to its axis with appropriate tools making sure to remove chips and / or residual burrs;
- Pay attention to the quality and quantity of the material used as a sealing element and the closing torque applied to the fitting, because they might cause immediate losses or losses found after the commissioning of the system;
- Apply to the threads of the fitting suitable sealant materials compatible with the material of the fitting and with the field of application of the system in accordance with current regulations;
- Screw in the fitting on the component paying attention to the correct coupling that must be aligned and must not show abnormalities;
- Tighten the fitting with suitable tool, taking care not to damage it in order to obtain an adequate seal;
- Perform sealing tests in accordance with standards set for the scope of the system.

## Attention:

It is forbidden to replace or tamper the sealing elements.

Pay attention to the combination of different materials, a mismatch could trigger principles of corrosion.

The fittings in three pieces must be closed until reaching the mechanical bar, not necessary to apply more couples to ensure the seal of the component; you are advised to tighten the nut making sure to block the end of the fitting, previously installed, using suitable tools.