Instruction Manual

# SICURFLEX CSST GAS STAINLESS-STEEL PLIABLE TUBING FOR GAS





### APPLICATION

The system is designed for indoor gas piping for the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> family gases according to EN437, in buildings with up to 0.5 bar overpressure from the main gas shut-off valve to the to the connection point of a fixed gas fired appliance. It is not intended for mobile gas appliances.

Corrugated pliable tubes are made of stainless steel, easily shapeable, designed for fixed connections. They are made of AISI 316L (1.4404) stainless steel, 0.3 mm thick. Their surface is protected against corrosion and mechanical damage by yellow PE coating 0.5 mm thick. Once installed, the tube and its connections shall not be exposed to any stress. Tube elbows can be replaced by a bent tube (the min. bend radius shall be respected). The tubes are sold by the meter and come in coils of 4 or 30 m. They are cut to the desired length and finished on the spot using special tools supplied in a tool case. The system gaskets are made of NBR. In order to secure sufficient tightness, only nipples with enlarged sealing surface area (wall thickness) can be used with Sicurflex, see the chart of nipples below. During installation the instructions in the manual shall be followed meticulously, sticking to the description and pictures.

## **BASIC DATA**

Tube material	AISI 316L (1.4404)
Tube wall thickness	0.3 mm
Insulation thickness	0.5 mm
Working temperature	0 °C/+60 °C
Max. working overpressure	0.5 bar

## DIMENSIONS AND CODES OVERVIEW

DN	Diam. (mm) Coo		ode	Union nut size	Nut+gas-	Casket along and	
DN	Inner	Outer	4 m	by meter	Union nut size	ket code	Gasket alone code
DN 12	12	15.8	13459	13460	1/2"	13634	14090
DN 15	15.7	20	13461	13462	3/4"	13635	14091
DN 20	19.7	25	13463	13464	1"	13636	14092



### **PLT CONNECTION FITTINGS**

Code	Nipples with enlarged sealing area		
6971	Nipple 1/2"	M/M	
6965	Nipple 1/2" × 3/4"	M/M	
6964	Nipple 1/2" × 3/4"	F/M	
6970	Nipple 3/4"	M/M	
6967	Nipple 3/4" × 1"	M/M	
13366	Nipple 3/4" × 1"	M/F	
6969	Nipple 1"	M/M	
6966	Nipple 1" × 5/4"	M/M	

#### **NBR NUT GASKET FOR GAS**

Code	DN	for nut
14090	12	1/2"
14091	15	3/4"
14092	20	1"



### MIN. BEND DIAMETER AT TUBE AXIS

DN	Min. bend diam. (mm)
DN 12	25
DN 15	25
DN 20	30



### **PROTECTIVE YELLOW SELF-ADHESIVE TAPE**

The tape is intended to protect exposed pipe sections, nuts and fittings against chemical and electrical corrosion and mechanical damage.

Code	Width	Thickness	Length	Working temp.
13940	38 mm	0.25 mm	15 m	0 °C to 105 °C

#### **RUBBER-LINED PIPE CLAMPS**

These pipe clamps are used to fix the PLT assembly to a building.

Code	Item
14160	DN 12 Single-screw pipe clamp with M8 fixing point, screw and dowel included
14161	DN 15 Single-screw pipe clamp with M8 fixing point, screw and dowel included
14162	DN 20 Single-screw pipe clamp with M8 fixing point, screw and dowel included



### **CLAMP FOR GAS PIPES**

Code	Item
13939	1/2" and 3/4" clamp for DN 12 and DN 15 gas pipes
14088	1/2" and 1" clamp for DN 12 and DN 20 gas pipes



## **RESISTANCE OF SICURFLEX CSST GAS PIPES**

The tube may be bent freely supposed the min. bend radius is respected. Torsion stress to the tube is not permitted. This shall be respected especially during tightening the nuts and choosing the position of connection points with regard to the possible movements that might cause tube torsion. Instructions in the Manual shall be followed during the installation.

The lifetime is unlimited under normal use. The warranty period is 2 years. No extraordinary measures apply to stocking and transport. The tubes shall not be exposed to direct sunshine.

#### HOW TO MAKE A SICURFLEX CSST PIPE USING A HAND IMPACT TOOL

The assembly shall be done by a qualified person.

Remove 8 rings of plastic coating **(1)** from the tube end using a cutter. Measure the required length of tube and add 4 rings (to create rims). Remove 8 rings of plastic coating on each side of the measured length **(2)** using a cutter. Remember the bends!

Using the pipe cutter, cut the measured tube length **(2)**. Try to make a clean cut, it is a pre-condition for a smooth seating face.

Screw the respective union nut onto the tube and push the end of the tube into the respective opening in the clamp **(3)**. The tube shall be inserted in such a way that 2 rings protrude from the clamp on the recess-free side.

Then insert the clamp into the jig with moveable piston so that these rings face the piston **(4)**.

Now repeatedly strike the tube head with the piston until a flat sealing surface **(5)** is formed. This can be heard very well, the dampened sound will change to sharp, metal-like sound when the sealing surface is ready.

Repeat the procedure for the other tube end, starting from point **(3)**. Do not forget to fit the other union nut!

Now the tube is ready to be mounted in its place. Shape it into the desired form and use the appropriate gaskets. Tighten the union nuts.

Union nut torque

DN	12	15	20
Torque	40 Nm	50 Nm	50 Nm

After a successful leak test use the yellow protective tape **(6)** and wind it around the fittings and sections with removed protective coating in a layer of at least 0.5 mm. This will prevent corrosion or mechanical damage.



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