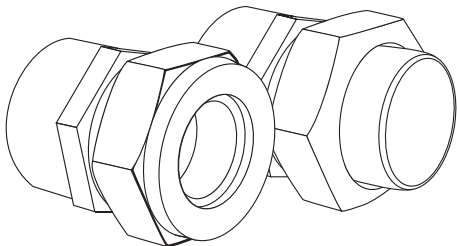




Fittings
Stahlmann
for corrugated
stainless steel tubes

OPERATION MANUAL
(WITH DATA SHEET)



CONTENTS

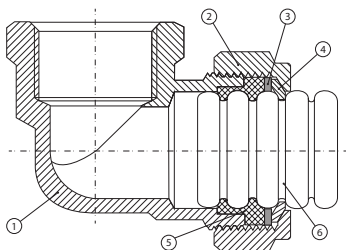
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1. PURPOSE OF THE PRODUCT

Fittings for water supply systems

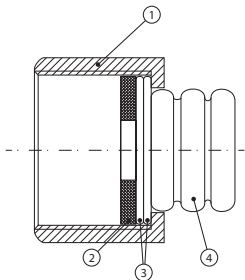
Stahlmann brass fittings are designed to connect Stahlmann stainless steel flexible corrugated tubes to appliances with inlet connections as well as to connect corrugated tubes to each other.

a) Quick-assembly fitting



1. Body
2. Union nut
3. Fixing ring (stainless steel)
4. Locking ring (CW617N brass)
5. Silicone gasket
6. Corrugated stainless steel tube

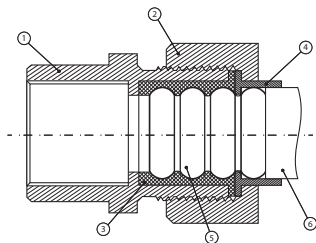
b) Union nut for flared tubes



1. Union nut Stahlmann
2. Silicone gasket Stahlmann
3. Flared crests of corrugated tube
4. Corrugated tube Stahlmann

Fittings for gas supply systems

Stahlmann brass fittings are designed to connect Stahlmann stainless steel flexible corrugated tubes to devices with inlet connections.

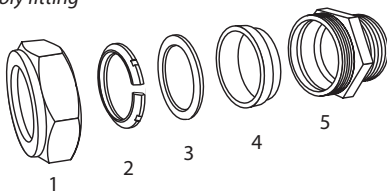


1. Body
2. Union nut
3. Sealing gasket made of Fluoroelastomer (FPM)
4. Dielectric gasket made of polyamide PA66 (nylon) with fiberglass (30%)
5. Stainless steel corrugated tube
6. Stainless steel corrugated tube in a polyethylene jacket

2. FITTINGS DESIGN

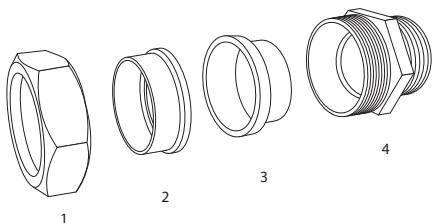
For water supply systems:

Quick-assembly fitting



1. Union nut
2. Locking ring (CW617N brass)
3. Fixing ring (stainless steel)
4. Silicone gasket
5. Body

For gas supply systems:



1. Union nut
2. Dielectric gasket made of polyamide PA66 (nylon) with fiberglass (30%)
3. Sealing gasket made of Fluoroelastomer (FPM)
4. Body

3. INSTALLATION OF FITTINGS

For water supply systems:

Quick-assembly fitting

- a. Carefully cut off the required length of the tube at the corrugation trough with a roller tube cutter. Check the tube edge, it should be smooth, without burrs.
- b. Unscrew the fitting nut (not completely).
- c. Insert the tube into the fitting body until tight and use a wrench to tighten the nut.

Union nut for flared tube

- a. Carefully cut off the required length of the tube at the corrugation trough with a roller tube cutter. Check the tube edge, it should be smooth, without burrs.
- b. Slide the union nut onto the tube so that the nut threads face the end of the tube.
- c. Using a flaring tool (Stahlmann flaring tool is recommended for best results), flare each ridge of corrugated tube one by one. For a reliable and tight connection, it is necessary to flare at least two corrugated tube ridges. If two ridges are flared at once, the flared part of the tube will be rough and the connection will be less reliable.
- d. Insert the silicone gasket into the tube.
- e. Tighten the nut on the tube using a wrench. The tightening torque should be considered so as not to cut through the silicone gasket.

For gas supply systems

- a. Carefully cut off the required length of the tube at the corrugation trough with a roller tube cutter. Check the tube edge, it should be smooth, without burrs.
- b. Remove the polyethylene jacket from the 5 ridges of the corrugated tube.
- c. Unscrew the nut from the fitting body and put it onto the tube so that the nut threads face the end of the tube.
- d. Carefully loosen the polyamide (nylon) dielectric gasket and slide it onto the third ridge from the end of the tube.
- e. Slide a sealing gasket (FPM) onto the tube.
- f. Insert the tube into the fitting body and tighten the union nut with a wrench.

Avoid excessive mechanical force, since it may destroy the fittings components.

4. PRODUCT SPECIFICATIONS

Main technical characteristics and standard sizes of fittings for water supply systems:

Parameter	Fitting size					
	DN15	DN20	DN25	DN32	DN40	DN50
Body and nut material	Brass CW617N					
Body and nut fitting coating material*	Nickel					
Thread size, inch	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Operating temperatures, °C	-50 to +110 (from -50 to +160)**					
Maximum short-term temperature, °C	150 (270)**					
Maximum operating pressure, MPa	1.5	1.2	1.0	1.0	0.6	0.4
Life time	30 years					

*fittings can be either coated or uncoated.

**when using high-temperature silicone gaskets (available optionally).

Main technical characteristics and standard sizes of fittings for gas supply systems:

Parameter	Fitting size		
	DN15	DN20	DN25
Body and nut material	Brass CW617N		
Thread size, inch	1/2"	3/4"	1"
Operating temperatures, °C	from -20 to +100		
Maximum operating pressure, MPa	1.5	1.2	1.0
Life time	30 years		

Main technical characteristics and standard sizes of union nuts and silicone gaskets for corrugated tubes for flaring:

Parameter	Nut size	
	DN13	DN18
Body and nut material	brass CW617N	
Coating material	chrome	
Thread size, inch	1/2"	3/4"
Operating temperatures, °C	-50 to +110	
Maximum short-term temperature, °C	150	
Max. working pressure, MPa	1.5	1.2
Life time	10 years	

Main technical characteristics and standard sizes of Stahlmann ball valves for corrugated tubes:

Nominal diameter, DN	1/2"
Nominal pressure, PN	15 bar
Hydraulic fluid	water or any liquid compatible with PTFE and EPDM
Maximum working medium temperature	up to 90 °C
Type of ball valve flow path	full port
End thread type	pipe thread G1/2"
Body material	brass CW617N
Ball material	brass CW617N
Stem material	brass CW617N
Ball seal	2 EPDM rings, 2 PTFE rings
Stem seal	2 NBR rings

5. OPERATING CONDITIONS AND MAINTENANCE

Fittings are operated at pressures and temperatures specified in clause 4 of this operation manual

6. WARRANTY

The manufacturer guarantees the compliance of Stahlmann brass fittings with the technical specifications in this operation manual provided the consumer observes the rules for use, transportation, storage, installation and operation.

Warranty period is 2 years from the date of sale

6.1. Warranty service provides free repair or replacement of the product during the entire warranty period, subject to the following conditions:

- the product was used as intended;
- the product was installed and operated in accordance with the operation manual;
- the product has no mechanical damage that lead to malfunction.

6.2. If during or after damage analysis a violation of any of the above conditions is found, the manufacturer or its representative has the right to refuse warranty claims by issuing an appropriate statement.

- The product is not covered by the warranty and will not be repaired/ replaced free of charge in the following cases:
- the warranty has expired;
- the product was damaged during transportation after receipt of the goods (storage, if the product was not used), or the rules of installation and operation, transportation and storage were violated;
- the warranty terms have been violated, determined by technician authorized by manufacturer or its representative;
- the product shows signs of tampering or unauthorized repair;

6.3. The following non-conformities are not covered by warranty or any other liability:

- mechanical damages: chips, cracks, dents, impact, tensile load caused by knocks, collapse or scratches;
- damage caused by the ingress of foreign substances and objects into the product;
- damages caused by incorrect operation or the use of non-standard equipment or equipment that has not been confirmed compatible with the equipment that is connected to this unit;
- damages caused by nature, fire and other external factors, climatic impact or other effects.

6.4. In all cases where the product is beyond warranty repair, a chargeable repair may be considered at the discretion of the manufacturer or its representative.

6.5. Never shall the manufacturer or its representative be liable for damages (profit loss, business interruption, and general monetary loss) that arise from use or inability to use the product purchased. In any case, financial compensation based on warranty conditions cannot exceed the value spent by purchaser for the product or piece of equipment, which initiated the loss.

6.6. Replacement or repair of any new/refurnished part of the product during the warranty period creates no warranty expansion.

6.7. The following documents need to be transferred to the manufacturer or its representative in order to fulfill the warranty obligations:

- the buyer's claim specifying the nature of the malfunction and operating conditions;
- a document stating the date of sale.

Fittings for water supply systems:



Fitting
Stahlmann (M)



Fitting
Stahlmann (F)



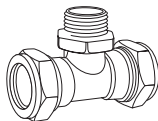
Union
Stahlmann



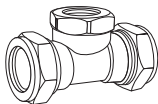
Fitting Stahlmann (F)
groove



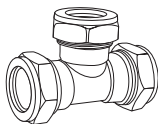
Reducing union
Stahlmann



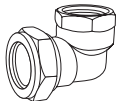
Tee fitting
Stahlmann (M)



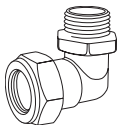
Tee fitting
Stahlmann (F)



Tee fitting
Stahlmann



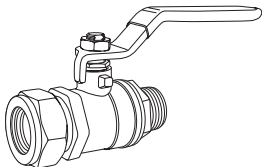
Elbow fitting
Stahlmann (F)



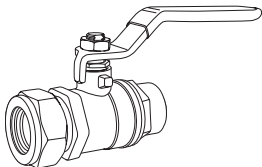
Elbow fitting
Stahlmann (M)



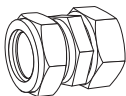
Elbow fitting
Stahlmann (F)
(Wall Plate)



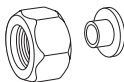
Ball valve Stahlmann (M)



Ball valve Stahlmann (F)

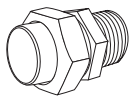


Eurocone fitting Stahlmann (F)
15x3/4 EF

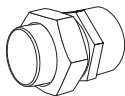


Union nuts and silicone gaskets for
flared connection Stahlmann

Fittings for gas supply systems:



Fitting Stahlmann (M) gas



Fitting Stahlmann (F) gas

