ARSEN®

FAN COIL HOSES WITH BRAIDING AND WITHOUT BRAIDING

EN ISO 10380
PRODUCED AND TESTED

CONTENTS

GENERAL EXPLANATIONS

ARSEN fan coil hoses with or without braiding can be used instead of pipes, couplings or elbows with their very flexible structure thus they provide quicker installation.

Absorbing vibrations and expansions, flexing free of constrictions, decorative look resulted from stainless steel are some of main features.

Arsen Fan Coil Hoses as final connections to fan coils can save a great deal in fitting time. If the fittings are correctly selected, they can also be used to form a bypass loop during pressure testing and flushing to protect the fan coil. During service fan coil hose will prevent noise transmission and can compensate for pipe work expansion.

Arsen Fan Coil Hoses may be provided with or without insulation. Insulation is recommended in order to prevent sweating that may exist in heating and cooling systems. Selection of correct insulation lenghtens service life and provides high efficiency as a result of preventing heat loses through hose assemblies.

A fan coil unit is a device consisting of a heating or cooling coil and fan. It is part of an HVAC system found in residential, commercial, and industrial buildings. Typically a fan coil unit is not connected to ductwork, and is used to control the temperature in the space where it is installed, or serve multiple spaces. It is controlled either by a manual on/off switch or by thermostat.

Due to their simplicity, fan coil units are more economical to install than ducted or central heating systems with air handling units. Unit configurations are numerous including horizontal (ceiling mounted) or vertical (floor mounted).

Material Specifications of Fan Coil Hoses Without Braiding	
Hose	AISI 316L Stainless Steel
Connections	Carbon Steel (CrNi Coated) / AISI 304 Stainless Steel (Upon request)

Material Specifications of Fan Coil Hoses With Braiding	
Hose	AISI 316L Stainless Steel
Braid Wire	AISI 304 Stainless Steel
Ferrule	AISI 304 Stainless Steel
Connections	Carbon Steel (CrNi Coated) / AISI 304 Stainless Steel (Upon request)

Optional Material Specifications	
Insulation	Elastomeric Rubber
Insulation Ferrule	Plastic

GENERAL EXPLANATIONS

Pressure resistance values given first table below show that the hose preserves its original form without moving. When pressure applied is above these values, form of the hose begins changing in other words hose length increases. If applied pressure continues to be increased, hose looses ist flexibility and leaktightness. However hoses with braiding specified in the second table below are able to keep their form and continue serving even in this high pressure conditions.

Standard and Reinforced Unbraided Hose Operating Conditions							
Hose Inside Diameter Connection Diameter	DN Inch	12 1/2”		16 3/4”		20 1”	
Operating Pressure	Bar	9.0	13.5	7.0	10.5	4.0	6.0
Static Bend Radius	mm	20	30	28	42	32	48

Fan Coil Hose With Brading Operating Conditions				
Hose Inside Diameter Connection Diameter	DN Inch	12 1/2”	16 3/4”	20 1”
Operating Pressure	Bar	60	55	50
Static Bend Radius	mm	50	70	90

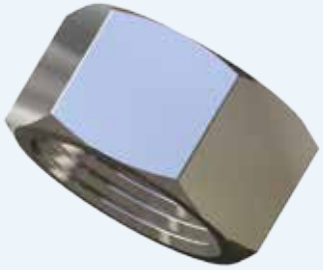
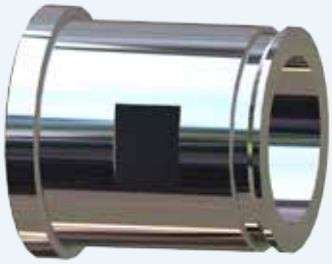
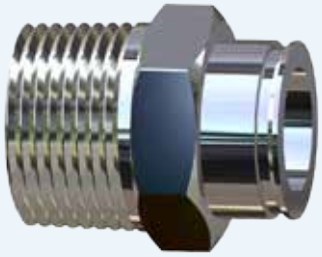
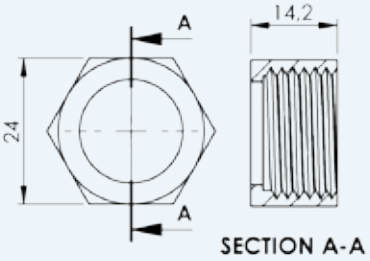
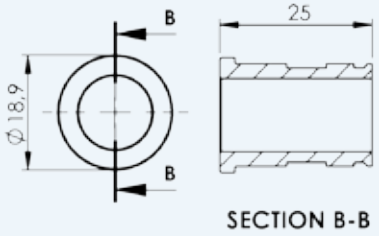
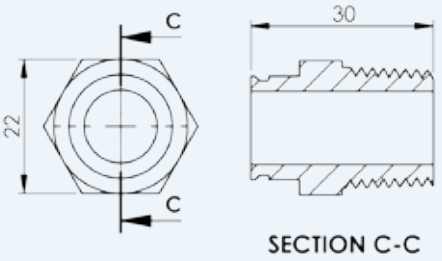
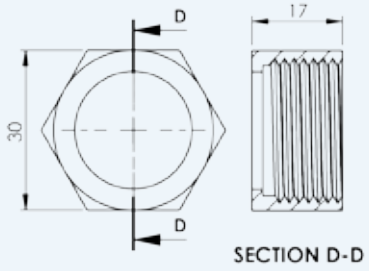
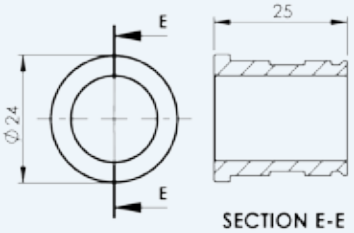
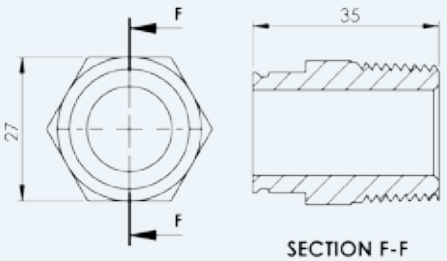
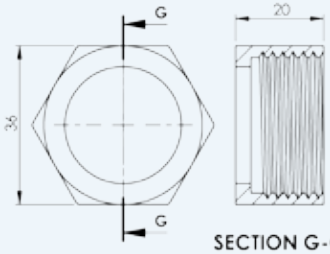
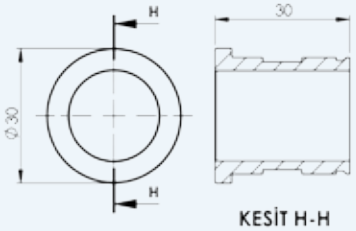
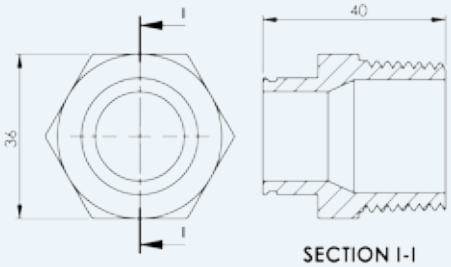
CONNECTION TYPES

Female - Male Connected

Female - Female Connected

Male - Male Connected

TECHNICAL DRAWINGS OF CONNECTIONS

Nut Technical Drawings	Inner Part Technical Drawings	Nipple Technical Drawings
		
		
		
		

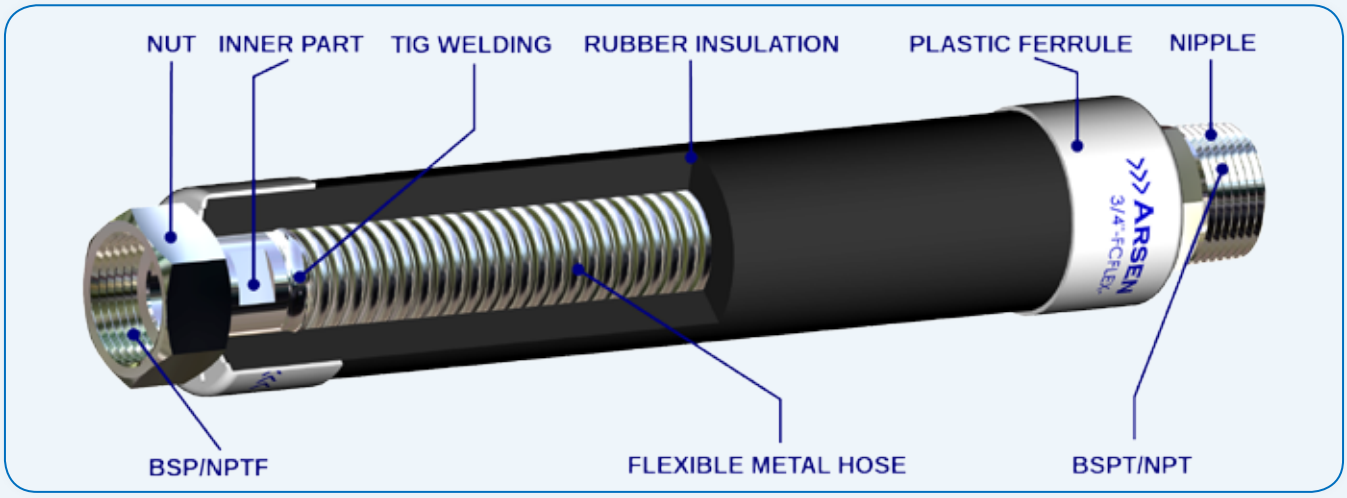
Unless otherwise requested, the connections are produced from CrNi coated carbon steel.

Choosing connections made of stainless steel lengthens hose life.

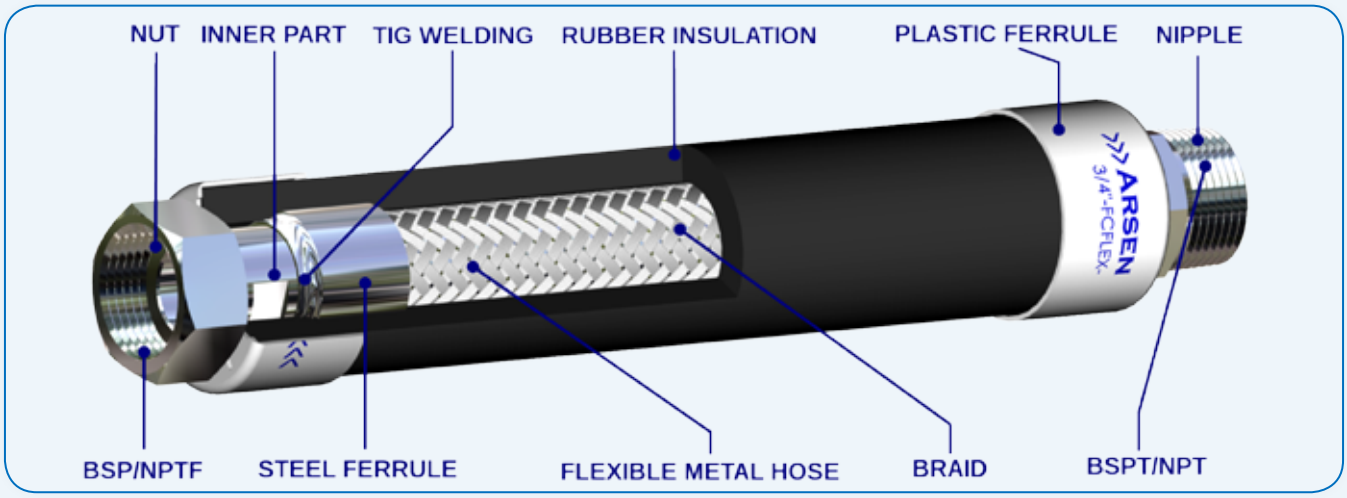
Male side connections are threaded according to en ISO 7/1 standard, female sides are threaded according to EN ISO 228/1 standard. For female side, nut's step on surface inside is produced flat in order to use flat seals.

FAN COIL HOSE SPECIFICATIONS

Fan Coil Hose Without Braiding Introduction



Fan Coil Hose With Braiding Introduction

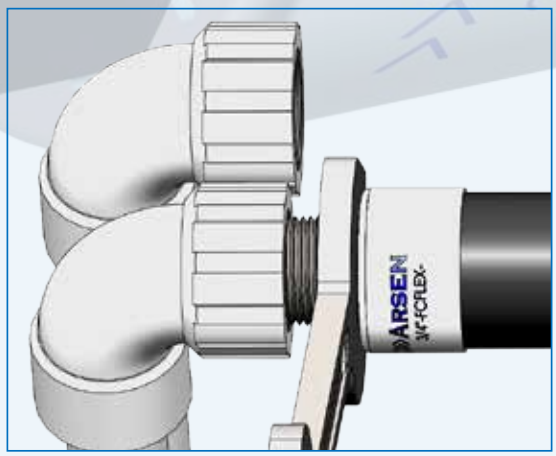


ARSEN insulated fan-coil hoses one of the important accessories and are very practical for connecting fan-coil devices to installation lines in confined spaces. Insulation is optional and prevents possible condensation in systems. Plastic ferrules brings in a decorative appearance and at the same time prevents the insulation material sliding from its original position and hides cut parts of insulation.

Due to difficulties of insulation after mounting the hose to system (insulation is applied without cutting in length), it is better to prefer fan coil hoses initially with insulation.

Dimensions					
Connection Diameter (inch)	1/2" - 1/2"	1/2" - 3/4"	3/4" 3/4"	3/4" - 1"	1" - 1"
Hose Diameter	12	16	16	20	20
Connection Types	Male - Female / Female - Female / Male - Male				
Lengths (mm)	The hoses can be produced in all lengths between 200 - 2000				

INSTALLATION AND USE



While mounting Fan Coil hoses, obeying instructions below extends cycle life and prevents faults resulted from incorrect installation.

It should be preferred to use appropriate additional accessories for threaded parts and be attentive for international differences. For instance, if a nipple without appropriate thread is fitted to an exported globe valve, there may be leaks through the threads.

Nipple side is to be tightened first prior to tighten the other side of hose.

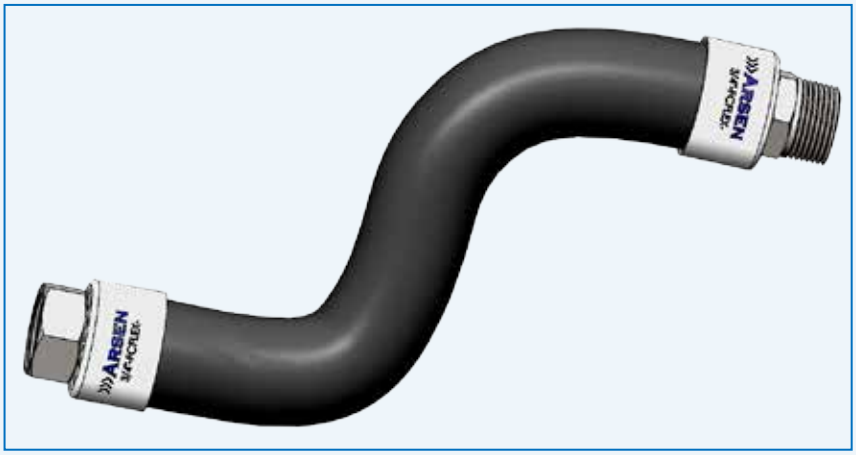
For bolt side, using a nipple in between connections eases the installation, if possible.

When mounting the female side, in order to prevent twisting of hose, hold the hexagonal area on the tail side with a wrench and then tighten the bolt. (See drawing)

Gaskets and teflon tapes should be used for threads sealing. Leak tightness is very important for connection ends. If there even is a minor leak in flat parts with seals or threaded parts, this causes rust to accumulate and harms the material in time. Even if stainless steel is used for those parts, dust will harm the protective surface on stainless steel and shortens life time.

Hose should not be connected when stretched and should not be bended near welding points. Installations as shown on left drawing shortens hose life and causes leaks in a short time period due to force on welding points.

An example of correct bending is below.



IT IS STRONGLY RECOMMENDED THAT PERSONNEL INVOLVED IN INSTALLATION OF FAN COIL HOSES REVIEW THIS INSTALLATION INSTRUCTIONS.

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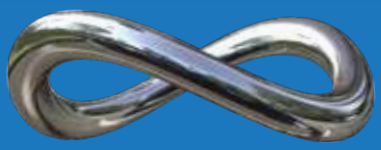

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