



# FLEXIBLE THERMOPLASTIC HOSES AND FITTINGS FOR HVACR

the preferred flexible choice for all pressure switches,  
manometers and oil line connections

# APPLICATION

Designed to give a quick and simple solution to premium quality connections, the Quadra system - hoses, fittings and tooling - fits perfectly on every type and size of any condensing unit used in AC and Refrigeration equipment.

Exceeding the performances of copper tubing, the Quadra system eliminates welding and brazing operations adding benefits like noise reduction, resilience to vibrations, and, thanks to its flexibility, it assures quick and easier installation.



## QUADRA DN2

The **QUADRA DN2** hoses feature an internal diameter of 2 mm and represent an excellent alternative to capillary rigid copper tubing. The **QUADRA DN2** is ideal to connect pressure gauges, pressure switches and pressure test points.



## QUADRA DN4

With an internal diameter of 4 mm, the **QUADRA DN4** is the perfect replacement of 6 mm or 1/4" OD rigid copper tubing. This size is specifically dedicated for the connections of static instrument lines and oil return lines.



## QUADRA DN6

The **QUADRA DN6** hoses are characterized by an internal diameter of 6 mm to replace of 8 mm or 5/16" OD rigid copper tubing. Featuring a bigger internal diameter, which is ideal for oil equalization and return lines where a larger flow is required.

# FEATURES + BENEFITS



## PERMITTED FLUIDS

HFO/HFC (R134a, R404A, R407A, R407B, R407C, R410A, R507, R32, R448A, R449A, R450A, R513A, R1234yf, R1234ze)



## SPECIFICATIONS

Fully compliant to  
Directive 97/2/CE - paragraph 3 article 3  
RoHS 2011/65/EU compliant  
WEEE 2002/96/EC compliant  
REACH 1907/2006 compliant



## CONFIGURATION

Coils of 50m and 10m  
Fittings available in 10 and 50 pieces boxes. Factory made assemblies available in various configurations



## TEMPERATURE RANGE

Min allowable temperature  
-45°C | (-50°F)  
Max allowable temperature  
+130°C | (+266°F)



## QUICK ASSEMBLING

No tube bending or manipulating.  
In a few simple steps QUADRA hose is ready to be installed



## EASY & SAFE

Easy, clean installation, safer for the operator eliminating welding and brazing of copper tubing



## CLASS 1 PERMEATION

Thanks to their special construction, all QUADRA hoses are within class 1 according to the standard EN 1736



## RESILIENT TO VIBRATIONS

Compressor vibrations are efficiently absorbed by the flexibility of QUADRA hose removing potential cracking



## NOISE REDUCTION

QUADRA flexible hoses significantly help to reduce noise generated by the compressor



# QUADRA HOSES

## HOSE DETAILS AND PERFORMANCE OF SERVICE

	Part number							
	50m	10m	ID mm	OD mm	BEND RADIUS mm	CRIMPING DIAMETER ø mm		
<b>STANDARD TYPE</b>	0780C 0780BC	0780K 0780BK	DN2	6,1	10	7-0,2 7+0,1	NA	7-0,2 7+0,1
	0380C 0380BC	0380K 0380BK	DN2	6,1	10	7-0,2 7+0,1	NA	7-0,2 7+0,1
	0789C 0789BC	0789K 0789BK	DN4	8,3	25	NA	9,8-0,1 9,8+0,2	
	0786C 0786BC	0786K 0786BK	DN6	10,9	35	NA	12,4-0,1 12,4+0,2	

## WORKING PRESSURE | TEMPERATURE

\* The below data refer to all QUADRA hoses

WORKING PRESSURE			BURST PRESSURE			WORK. TEMPERATURE	
bar	MPa	psi	bar	MPa	psi	min °C	max °C
120	12,0	1740	600	60	8700	-45	+130

## PERMEABILITY CLASSIFICATION

according to the European EN 1736:2008 for non metallic tubes used in air and refrigeration systems

low permeability

**CLASS 1**

**CLASS 1**

**CLASS 2**

high permeability

**CLASS 3**

Figures indicated are average of all the highest obtained values converted from Helium to refrigerant leak rate, as specified within EN 1736:2008.

\* test procedures according with the relevant sections of EN 1736:2008 (R744 is not included into the specification). Test at 73,7 bar has been performed at 31°C (the maximum allowable temperature for the refrigerant to have saturated pressure).

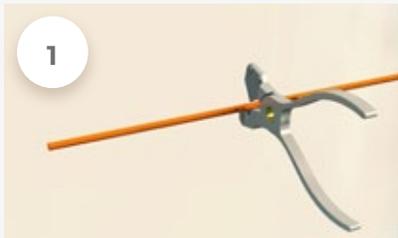
Test report: BO-TIS-219890-TUV-01-03-12 issued by TÜV Italia

The test method and procedures have been verified by TÜV Italia as third party. As a result of the assessment and inspection of the characteristics and performance of the permeability test machine, of the test procedures utilized, carried out at the premises of Transfer Oil S.p.A. - Italy, TÜV Italia confirms that it meets the requirements of EN 1736:2008

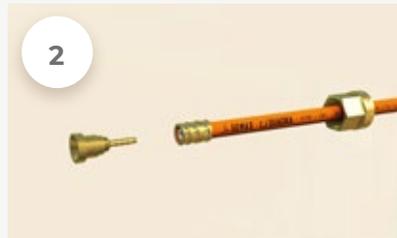
	TEST DATA	Test temperature		
		+32 °C	+100 °C	
R404A	<b>Test Pressure</b>	14,0	60,0	<b>bar</b>
	QUADRA™ DN2	0,12	8,20	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN4	0,19	9,10	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN6	0,13	6,50	<b>g/m<sup>2</sup>/year</b>
R407C	<b>Test Pressure</b>	13,3	60,0	<b>bar</b>
	QUADRA™ DN2	0,11	7,63	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN4	0,17	8,46	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN6	0,11	6,05	<b>g/m<sup>2</sup>/year</b>
R410A	<b>Test Pressure</b>	18,8	60,0	<b>bar</b>
	QUADRA™ DN2	0,14	7,13	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN4	0,22	7,92	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN6	0,15	5,66	<b>g/m<sup>2</sup>/year</b>
R134a	<b>Test Pressure</b>	7,1	60,0	<b>bar</b>
	QUADRA™ DN2	0,06	8,45	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN4	0,10	9,37	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN6	0,07	6,69	<b>g/m<sup>2</sup>/year</b>
R744*	<b>Test Pressure</b>	73,8	60,0	<b>bar</b>
	QUADRA™ DN2	2,04	5,51	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN4	0,98	6,12	<b>g/m<sup>2</sup>/year</b>
	QUADRA™ DN6	0,45	4,37	<b>g/m<sup>2</sup>/year</b>



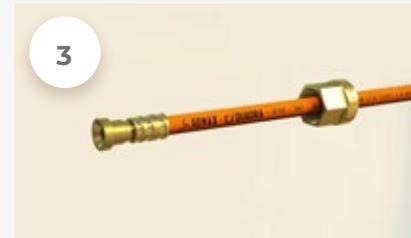
# ASSEMBLING instructions



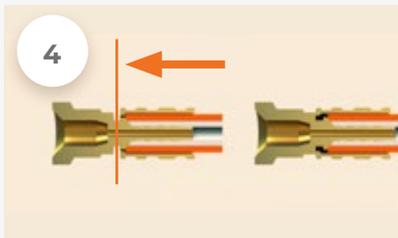
1  
Cut the QUADRA capillary hose to the required length using the special WXA004 cutter.



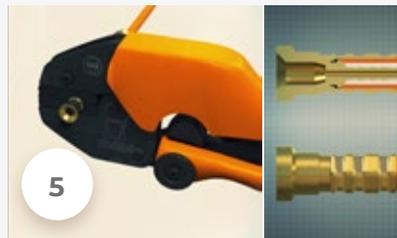
2  
Slip the nut over the hose (depending on fitting type). Ensure that the threaded side is pointing towards the end of the hose that needs the assembling.



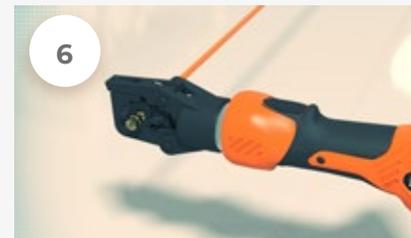
3  
When pushing the ferrule over the hose end, ensure its correct positioning, in line with the hose end. Push the insert into the hose end you want to assemble.



4  
Pay attention not to move the components already fitted and slide the ferrule over the hose towards the insert positioning it in line with the insert.



5  
Crimp the ferrule with our hand pliers tupe RXA007, up to the limit stop of the pliers: once the optimal deformation has been achieved the pliers will open automatically.



6  
Crimp the ferrule using our pliers cod. RXA010. The deformation is achieved when the plier release.



7  
The assembling is finished: check the correct positioning of the components and make sure the entire surface of the ferrule has been swaged.



# QUADRA DN2 FITTINGS

UL

## 1/4 SAE straight female

DN2



Part number	Item	Copper Gasket
<b>XBA02C</b>	50 pcs box	☉
<b>WBA02C</b>	50 pcs box	☒
<b>KBA02C</b>	10 pcs Blister	☒

## 1/4 SAE straight female + valve opener

DN2



Part number	Item	Copper Gasket
<b>XBB02C</b>	50 pcs box	☉
<b>WBB02C</b>	50 pcs box	☒
<b>KBB02C</b>	10 pcs Blister	☒

## 1/4 SAE elbow female 90°

DN2



Part number	Item	Copper Gasket
<b>XCA02C</b>	50 pcs box	☉
<b>WCA02C</b>	50 pcs box	☒
<b>KCA02C</b>	10 pcs Blister	☒

## "T" fitting

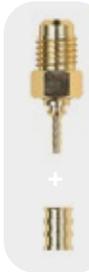
DN2



Part number	Item	Copper Gasket
<b>WPB0C1</b>	50 pcs box	☒
<b>KPB0C1</b>	10 pcs Blister	☒

## 1/4 SAE straight male

DN2



Part number	Item	Copper Gasket
<b>WDN22C</b>	50 pcs box	☒
<b>KDN22C</b>	10 pcs Blister	☒

## "T" fitting with 1 female 1/4 SAE

DN2



Part number	Item	Copper Gasket
<b>XPB0C2</b>	50 pcs box	☉
<b>WPB0C2</b>	50 pcs box	☒
<b>KPB0C2</b>	10 pcs Blister	☒

## "T" fitting with 2 females 1/4 SAE at 180°

DN2



Part number	Item	Copper Gasket
<b>XPB2C3</b>	50 pcs box	☉
<b>WPB2C3</b>	50 pcs box	☒
<b>KPB2C3</b>	10 pcs Blister	☒

## Elbow 90°

DN2



Part number	Item	Copper Gasket
<b>WPD2C1</b>	50 pcs box	☒
<b>KPD2C1</b>	10 pcs Blister	☒

## "T" fitting with 1 female 1/4 SAE

DN2



Part number	Item	Copper Gasket
<b>XPB2C4</b>	50 pcs box	☉
<b>WPB2C4</b>	50 pcs box	☒
<b>KPB2C4</b>	10 pcs Blister	☒

## Cross fitting

DN2



Part number	Item	Copper Gasket
<b>WPA2C1</b>	50 pcs box	☒
<b>KPA2C1</b>	10 pcs Blister	☒

## "T" fitting with 2 females 1/4 SAE at 90°

DN2



Part number	Item	Copper Gasket
<b>XPB2C7</b>	50 pcs box	☉
<b>WPB2C7</b>	50 pcs box	☒
<b>KPB2C7</b>	10 pcs Blister	☒

## Copper brazing fitting (4x6x100 mm)

DN2



Part number	Item	Copper Gasket
<b>WZE2C1</b>	50 pcs box	☒

# QUADRA DN4 FITTINGS



UL

## 1/4 SAE straight female

DN4



Part number	Item	Copper Gasket
<b>XBA02M</b>	50 pcs box	⊙
<b>WBA02M</b>	50 pcs box	⊗
<b>KBA02M</b>	10 pcs Blister	⊗

## 1/4 SAE straight female + valve opener

DN4



Part number	Item	Copper Gasket
<b>XBB22M</b>	50 pcs box	⊙
<b>WBB22M</b>	50 pcs box	⊗
<b>KBB22M</b>	10 pcs Blister	⊗

## 3/8 SAE straight female

DN4



Part number	Item	Copper Gasket
<b>XBA04M</b>	50 pcs box	⊙
<b>WBA04M</b>	50 pcs box	⊗
<b>KBA04M</b>	10 pcs Blister	⊗

UL

## 1/4 SAE elbow female 90°

DN4



Part number	Item	Copper Gasket
<b>XCA02M</b>	50 pcs box	⊙
<b>WCA02M</b>	50 pcs box	⊗
<b>KCA02M</b>	10 pcs Blister	⊗

UL

## 3/8 SAE elbow female 90°

DN4



Part number	Item	Copper Gasket
<b>XCA04M</b>	50 pcs box	⊙
<b>WCA04M</b>	50 pcs box	⊗
<b>KCA04M</b>	10 pcs Blister	⊗

## "T" fitting

DN4



Part number	Item	Copper Gasket
<b>WPB0M1</b>	50 pcs box	⊗
<b>KPB0M1</b>	10 pcs Blister	⊗

## "T" fitting with 1 female 1/4 SAE

DN4



Part number	Item	Copper Gasket
<b>XPB2M4</b>	50 pcs box	⊙
<b>WPB2M4</b>	50 pcs box	⊗
<b>KPB2M4</b>	10 pcs Blister	⊗

## "T" fitting with 1 female 1/4 SAE

DN4



Part number	Item	Copper Gasket
<b>XPB2M2</b>	50 pcs box	⊙
<b>WPB2M2</b>	50 pcs box	⊗
<b>KPB2M2</b>	10 pcs Blister	⊗

## 1/4 SAE straight male

DN4



Part number	Item	Copper Gasket
<b>WDN22M</b>	50 pcs box	⊗
<b>KDN22M</b>	10 pcs Blister	⊗

### Note:



Do not move or rotate the hose after installation to avoid unscrewing of the nut or damaging the fitting.  
Do not exceed maximum performance limits.  
Respect the nut torque value: - Torque wrench 14 7/16"-20 UNF for 1/4" SAE connections | 16 ÷ 18 N·m. Do not exceed 20 N·m - Torque wrench 22 5/8"-18 UNF for 3/8" SAE connections | 30 ÷ 32 N·m. Do not exceed 34 N·m.

## Copper brazing fitting (4x6x100 mm)

DN4



Part number	Item	Copper Gasket
<b>WZE2M1</b>	50 pcs box	⊗

# QUADRA DN6 FITTINGS



UL

## 1/4 SAE straight female

DN6



Part number	Item	Copper Gasket
<b>XBA02N</b>	50 pcs box	☉
<b>WBA02N</b>	50 pcs box	☒
<b>KBA02N</b>	10 pcs Blister	☒

## 3/8 SAE straight female

DN6



Part number	Item	Copper Gasket
<b>XBA04N</b>	50 pcs box	☉
<b>WBA04N</b>	50 pcs box	☒
<b>KBA04N</b>	10 pcs Blister	☒

UL

## 1/4 SAE elbow female 90°

DN6



Part number	Item	Copper Gasket
<b>XCA02N</b>	50 pcs box	☉
<b>WCA02N</b>	50 pcs box	☒
<b>KCA02N</b>	10 pcs Blister	☒

UL

## 3/8 SAE elbow female 90°

DN6



Part number	Item	Copper Gasket
<b>XCA04N</b>	50 pcs box	☉
<b>WCA04N</b>	50 pcs box	☒
<b>KCA04N</b>	10 pcs Blister	☒

## Copper brazing fitting (6x8x100 mm)

DN6

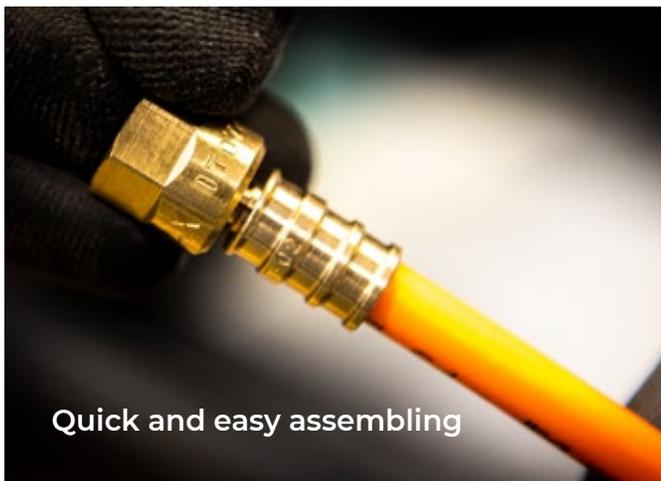


Part number	Item	Copper Gasket
<b>WZE2N1</b>	50 pcs box	☒

**Note:**



1/4" SAE connection with 7/16-20 UNF thread  
3/8" SAE connection with 5/8"-18 UNF thread



Quick and easy assembling



Complete kits

# QUADRA ACCESSORIES



## Quadra case



Part num.		Item
<b>MR293</b>	Empty	1 pcs
<b>W00005</b>	Complete	1 pcs

## Electric pliers

DN2

DN4

DN6



Part num.		Item
<b>RXA011</b>	Basic	1 pcs
<b>RXA012</b>	Extra battery + docking	1 pcs

## Hydraulic pliers

DN4

DN6



Part num.		Item
<b>RXA005</b>	Hydraulic pliers	1 pcs

## Hand pliers

DN2



Part num.		Item
<b>RXA007</b>	Hand pliers	1 pcs

## Cutter

DN2

DN4

DN6



Part num.		Item
<b>WXA004</b>	Cutter	1 pcs
<b>WXB004</b>	Blades	2 pcs Blister



## Accessories

DN2

DN4

DN6

Part num.		Item
<b>WTD2Z1</b>	Removable valve opener	50 pcs
<b>WRP502</b>	Copper gasket 1/4	50 pcs
<b>WRP504</b>	Copper gasket 3/8	50 pcs

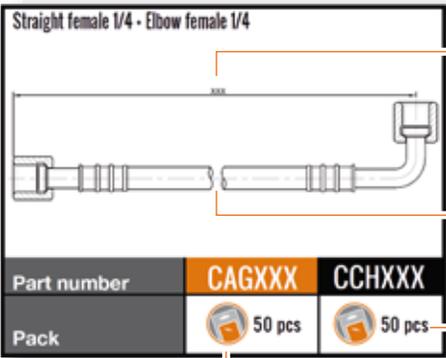


# Factory made HOSE ASSEMBLY

## POINT TO POINT

Simple and easy to fit, pre-assembled QUADRA DN2, DN4, DN6 follow customer requirements in terms of specific fittings and length.

50 UNIT  
PACKS



XXX - total length of QUADRA capillary hose in cm (multiple lengths of 10 cm)

image of an assembled hose

Code for black hose

Code for orange hose

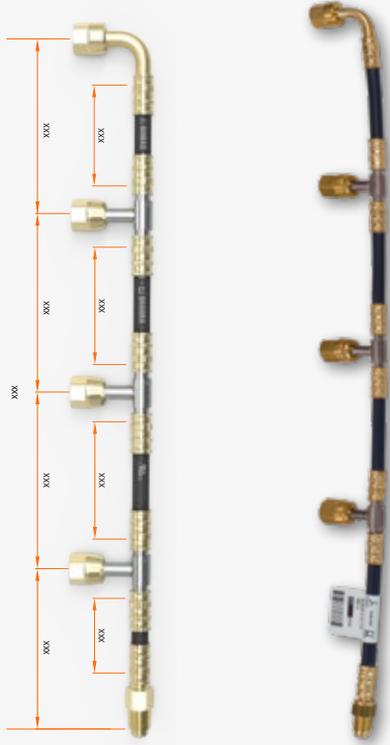


Try our product configurator



## MULTI POINT

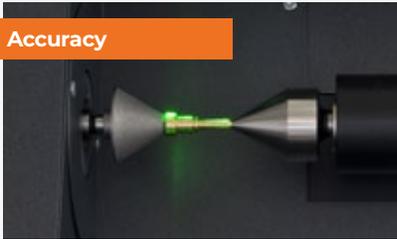
Possibility of supplying laid out capillary circuits to customer specification especially designed for pressure test points, gauges, pressure switches including the oil return circuits and oil level equalization, for any type of air conditioning and refrigeration units.



# Quality Controls and CERTIFICATIONS



## Accuracy



Laser scanning system for most accurate measurement

## Permeability test



Permeability test of GOMAX QUADRA hoses according to EN 1736

## Availability



Extended warehouse with enlarged stock for short lead times

## Total integrity



Designed, developed and certified components for total integrity of the final assembly

## Product labelling



Tag with barcode for each finished hose assembly

## Traceability



100% traceability of components and hoses with permanent marking



## Certifications

- ✓ ISO 9001:2015 certification
- ✓ ISO 14001:2004 certification
- ✓ ISO 45001:2018 certification
- ✓ UL certification



## GOMAX® a brand of Transfer Oil

Part of Transfer Oil since 2002, the Gomax brand includes thermoplastic hoses, fittings and accessories for the HVACR market.

Gomax flexible hoses are designed to replace rigid copper tubes in industrial refrigeration and air conditioning units leading to many benefits such as noise reduction and quick assembling (*no welding or brazing operations*). Gomax line firmly relies on Transfer Oil expertise in hose design and manufacturing.

Since its beginning in 1979, Transfer Oil produced reinforced thermoplastic hoses that quickly became the choice of the most significant distributors as well as renowned OEMs.

With applications ranging from hydraulic systems, gas and fluid handling, up to refrigeration and air conditioning, Transfer Oil hose products are used in several different industries. Being able to assemble and proof test Ultra High-Pressure products up to 3.800 bar / 55.000 psi, Transfer Oil is the only independent hose manufacturer able to offer products covering virtually every pressure range that a thermoplastic hose can reach with the technology known today.

Transfer Oil products are manufactured in state-of-the-art facilities where health and safety, environment and quality are taken to the highest level (*ISO 9001:2015 | ISO 14001:2015 | ISO 45001:2018*).

### HEADQUARTERS

Transfer Oil S.p.A.

Via Sacca 64  
43052 - Colorno - Parma - Italy  
[info@transferoil.com](mailto:info@transferoil.com)

### BRANCHES

Transfer Oil Houston

537 Rankin rd.  
77073 - Houston - Texas - USA  
[info-us@transferoil.com](mailto:info-us@transferoil.com)

Transfer Oil Singapore

196 Pandan Loop  
128384 - Singapore  
[info@transferoil.com.sg](mailto:info@transferoil.com.sg)



FOLLOW US

[www.gomax.com](http://www.gomax.com)

Transfer Oil Shanghai

9126 Hunan Road  
Pudong New District - Shanghai - China  
[info@transferoil.cn](mailto:info@transferoil.cn)