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04 Copper Tube, Fittings & Refrigerant

Copper Tube & Cushion Clamps

Soft coiled copper tube for refrigeration and air-conditioning applications.

Sealed and dehydrated.
Conforms to BS2871 pt2



Part No.	OD Ø (Inch)	OD Ø (mm)	Coil Length	Guage	List Price £
SCT-C3 22G*	3/16"	4.76	30	22	POA
SCT-B4	1/4"	6.35	15	22	POA
SCT-C4	1/4"	6.35	30	22	POA
SCT-C5 20G*	5/16"	7.94	30	20	POA
SCT-B6	3/8"	9.52	15	21	POA
SCT-C6	3/8"	9.52	30	21	POA
SCT-B8	1/2"	12.7	15	21	POA
SCT-C8	1/2"	12.7	30	21	POA
SCT-B10	5/8"	15.88	15	20	POA
SCT-C10	5/8"	15.88	30	20	POA
SCT-B12	3/4"	19.05	15	19	POA
SCT-C12	3/4"	19.05	30	19	POA
SCT-C14*	7/8"	22.23	30	19	POA

* Not stock item - Special order only

Cushion Clamps

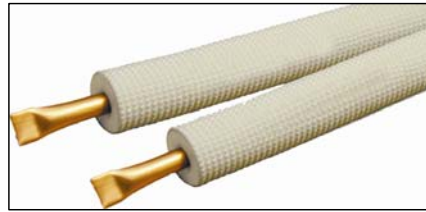
These channel mounted clamping systems are ideal for multiple line runs, while absorbing shock and vibration, reducing unwanted noise and preventing galvanic corrosion.



Part No.	Size	List Price £
CC-004	1/4"	1.10
CC-006	3/8"	1.10
CC-008	1/2"	1.10
CC-010	5/8"	1.10
CC-012	3/4"	1.20
CC-014	7/8"	1.40
CC-018	1 1/8"	1.70

Copper Tube, Fittings & Refrigerant 04

Pre-Insulated Copper Tube



EBRILSPLIT® pre- insulated copper tube is the ideal choice for air-conditioning applications.

EBRILSPLIT® insulating material made of Ebrille expanded polyethylene, obtained by means of extrusion without the use of gases harmful to the environment, with certified conductivity values of W/(m.K) 0.036 at 0°C, thus ensuring that there are no unpleasant surprises in store for the installer or your customers.

EBRILSPLIT® adopts an exceptionally resistant, external embossed protective film to avoid any rips or abrasions to the extruded polyethylene insulation.

With pipe ends sealed with over 70 tonnes of pressure to guarantee the perfect internal cleanliness and complete absence of humidity.

Part No.	OD Ø (Inch)	OD Ø (mm)	Pipe wall thickness (mm)	Coil Length	Insulation thickness (mm)	Max working Pressure (BAR)	List Price £
PICP-04	1/4"	6.35	0.8	25m	6	130	POA
PICP-06	3/8"	9.52	0.8	25m	9	93	POA
PICP-08	1/2"	12.7	0.8	25m	9	70	POA
PICP-10	5/8"	15.88	1.0	25m	9	69	POA
PICP-12	3/4"	19.05	1.2	25m	13	69	POA
PICP-14*	7/8"	22.23	1.2	25m	13	59	POA

* Not stock item

Technical Data

Working Temperature	From -45°C to +95°C					
Coefficient of Conductivity	Mean temp	0°C	W/(m.K)	0.036	kcal/h	0.0309
		40°C		0.040		0.0344
Permiability	μ ≥ 11'000					
ministerial approval Class 1	Requested					
Class 1 fire rating certificate	CSE RF 2/75/A					
CST	CSE RF 3/77					
Density	30 kg/m ²					
Odour	Neutral					
Resistance to chemical agents	Optimum					
Resistance to Fungii & parasites	Optimum					
Toxic incase of fire	Absent					
Coloured polyethylene protective film	Embossed white					
Noise reduction (30dB of noise due to the flow or to the contact with metal pipes)						

Type of Copper: CU-DHP 99.9 UNI 5649-71 EN 12735/1

Tollerances as per UNI 7773

04 Copper Tube, Fittings & Refrigerant Insulation

Refrigerant pipe insulation without the mess of separate lengths.

Supplied packaged in convenient coils within a protective carton.

These coils can be cut to length or fed directly onto your pipework from the box.

The packaging keeps the coils clean and tidy and prevents damage during transit.



Part No.	Bore Ø (Inch)	Bore Ø (mm)	Coil Length/box	Wall Thickness	List Price £
CK-6-9	1/4"	6.35	40m	9	28.00
CK-6-13*	1/4"	6.35	26m	13	28.00
CK-8-9*	5/16"	7.94	37m	9	28.00
CK-10-9	3/8"	9.52	34m	9	28.00
CK-12-9	1/2"	12.7	31m	9	28.00
CK-12-13*	1/2"	12.7	18m	13	28.00
CK-15-9	5/8"	15.88	27m	9	28.00
CK-15-13*	5/8"	15.88	20m	13	28.00
CK-20-9	3/4"	19.05	23m	9	28.00
CK-22-9	7/8"	22.23	20m	9	28.00
CK-22-13*	7/8"	22.23	14m	13	28.00
CK-28-9*	1 1/8"	28	14m	9	28.00

* Not stock item

Technical Data

Working Temperature	From -45°C to +105°C					
Coefficient of Conductivity	Mean temp.	0°C	W/(m.K)	0.034	kcal/h	0.0309
		40°C		0.040		0.0344
Permiability	μ ≥ 7'000					
Class 1 fire rating certificate	UNI 9174 - UNI 8457					
Ozone Resistance	Excellent (UNI 4905)					
Dimensional stability	-45°C	0,3% shrinkage				
	+105°C	0,5% shrinkage				
Density	30 kg/m ²					
Coloured polyethylene protective film	Black					

Insulation Tape

- Mesh-reinforced adhesive anti-condensation tape.
- CFC-free foamed elastomer.
- Operating temperature range: -80°C to +105°C.
- Reaction to fire: Class 1 (Italian Ministerial Decree (D.M.) 26-6-84)
- Dimensions: width 50mm; thickness 3 mm; 10m roll



Part No.	Dimensions				List Price £
	Thickness	Width	Roll Length	Colour	
FT0-10M.ALT	3mm	50mm	10m	Black	11.20

Stainless steel braided hose for refrigeration applications. Teflon® PTFE lined with a choice of female Flare or solder connections, install to help eliminate noise and vibration.



Features

- Wide operating temperature range -60°C to 260°C
- Resistance to UV, oxidation and discolouration
- Inert to almost all chemicals or refrigerant
- Superior flex fatigue life
- Low frictional properties
- Non flammable
- Unlimited shelf life

Part code	Description	Length	List Price £
AF124	1/4 female flare	300mm/12"	11.66
AF184	1/4 female flare	450mm/18"	12.72
AF244	1/4 female flare	600mm/24"	12.22
AF304	1/4 female flare	760mm/30"	15.90
AF364	1/4 female flare	910mm/36"	18.02
AS444	1/4 od solder	1100mm/44"	21.20
AS446	3/8 od solder	1100mm/44"	23.20
AS448	1/2 od solder	1100mm/44"	27.56
AS786	3/8 female flare	2000mm/80"	92.20

Capillary Tube

Annealed copper capillary tube Cu-DHP, supplied naked in coils from 30 to 80 kgs.; suitable for the production of hot thermostats, thermometers and thermocouples.

The STANDARD capillary is produced in accordance with the standard EN 12449, EN 12450



Part code	Description	List Price £
CCT-26F	0.7mm ID x 30m coil of copper capillary	17.31
CCT-31F	0.8mm ID x 30m coil of copper capillary	18.46
CCT-36F	0.9mm ID x 30m coil of copper capillary	19.62
CCT-42F	1.0mm ID x 30m coil of copper capillary	21.92
CCT-50F	1.3mm ID x 30m coil of copper capillary	25.96
CCT-64F	1.6mm ID x 30m coil of copper capillary	31.15

Items in bold are generally available ex-stock.
Please call sales office for availability.

04 Copper Tube, Fittings & Refrigerant

Spun Copper Driers & Kap Kits

Spun Copper Drier



Product Code	Capacity	Inlet	Outlet	List Price £
SCD05-0404	5g	1/4"	1/4" (6mm)	1.28
SCD10/04 CAP	10g	1/4"	0.098" (2.5mm) Capillary	1.84
SCD15-0404	15g	1/4"	1/4" (6mm)	3.97
SCD15/404/CAP102	15g	1/4"	102" (2.5m) X 0.030"ID (0.76mm)Capillary	10.28
SCD15/404/CAP102-042	15g	1/4"	102" (2.5mm) X 0.042"ID Capillary	10.28
SCD20/04 CAP	20g	1/4"	0.098" (2.5mm) Capillary	2.90
SCD30	30g	2 x 1/4"	1/4" (6mm)	6.40
SCD30-0404	30g	1/4"	1/4" (6mm)	4.22
SCD30/04/CAP	30g	1/4"	0.092" Capillary	4.52

Kap Kits

Capillary-Drier kits for use on R12, R22, R502, R134a, R404A

The ideal answer for blocked or damaged capillary and drier problems.

- One piece drier and capillary, enabling quick and easy replacement.
- Suitable for use with HFC134a and refrigerant blends as well as conventional refrigerants.
- Correct size capillary for each of the listed applications.
- 1/4" SAE inlet size

Product Code	Application	Outlet Size (mm)	Recommended Capacity Range	Capillary Length	List Price £
KK1H25	HMBP	0,79	0.08 - 0.15 kW	2300mm	13.18
KK1L25	LBP	0,91	0.08 - 0.15 kW	2300mm	12.11
KK2H25	HMBP	1,07	0.18 - 0.37 kW	3000mm	14.53
KK2L25	LBP	1,24	0.18 - 0.37 kW	3000mm	19.64

Check Valves

Leak Proof Magnetic Checking Action -
No Spring or ball bearing wear out.
Mount in any position.
Copper body is easily brazed with solder.



Part code	Description	List Price £
MS-4	1/4" spun copper check valve	9.80
MS-6	3/8" spun copper check valve	9.91
MS-8	1/2" spun copper check valve	11.74

Spun Copper Accumulators



Part code	Description	List Price £
ACCUMULATOR 30/140	Copper accumulator. 140mm x Ø30mm. 2 x 5/16" connections at one end	2.30
ACCUMULATOR 30/150A	Copper accumulator. 150mm x Ø30mm. 2 x 3/8" connections	2.40
ACCUMULATOR 30/200A	Copper accumulator. 200mm x Ø30mm. 2 x 5/16" connections	2.65
ACCUMULATOR 30/300B	Copper accumulator. 300mm x Ø30mm. 1/2" & 5/16" connections	2.85

Copper Tube, Fittings & Refrigerant 04

Access Fittings, Line Components, Connectors & Couplings

Access Fitting



Popular access fittings are all 1/4" Male flare with schraeder type valve core and dust cap.

VAX-4

Core Removal Tool



32520

Core removal & replacement tool.



TLVC

Product Code	Size	Extension	List Price £
VAX-4	1/4" OD	55mm	1.38
VAX-4B-6	1/4"OD	150mm	1.45

Product Code	Make	List Price £
TLVC	CPS	28.00
32520	Refco	40.00



Quick-Tap

Similar to Tap-A-Line but features a valve core in the 1/4" male port. Simply pierce the line and back seat the needle. Flow starts when depressor type charging hose is connected. Flow shuts off automatically when hose is removed. If valve core is not desired, it may be removed, pierce line and back seat needle. This method offers full unrestricted flow. Valve core can be removed or changed at any time without loss of refrigerant if needle is front seated.



Product Code	Description	List Price £
QT-1	Clamp-on valve tap. For tube sizes 1/4", 5/16" and 3/8"	2.38



A useful fitting to use with all 1/4 access (schraeder) points. To prevent emissions of gas, even when using a schraeder/access type valve. Fit the female nut over the access point, with the male fitting made onto your charging hose, it can be pushed on and/or removed with minimal gas loss and offers safety for the operator.

Product Code	Description	List Price £
QUICK CONNECT 1/4	1/4	14.00
QUICK CONNECT 5/16	5/16	25.22



Quick connection couplings for automotive use for R134a systems

Features

- 1/4" male outlet
- Spring loaded to prevent refrigerant loss
- Colour coded for low & High side use



Product Code	Description	List Price £
RC01-B	1/4" Male flare outlet, Low side (Blue)	30.00
RC01-R	1/4" Male flare outlet, High side (Red)	30.00

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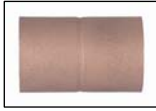
04 Copper Tube, Fittings & Refrigerant

Copper Fittings

Part Numbers in *italic* are not always available off the shelf. Please contact the sales office for availability.

Refrigeration quality copper fittings for Air Conditioning & Refrigeration applications.

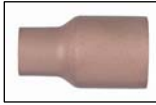
Straight Coupler (Copper to Copper)



Part No.	OD Tube In	List Price £ (Each)
SC-4	1/4"	0.28
SC-5	5/16"	0.28
SC-6	3/8"	0.25
SC-8	1/2"	0.34

Part No.	OD Tube In	List Price £ (Each)
SC-10	5/8"	0.32
SC-12	3/4"	0.73
SC-14	7/8"	0.62
SC-18	1 1/8"	1.25

Fitting Reducer (Fitting to Copper)



Part No.	OD Tube In/Out	List Price £ (Each)
FCR-64	3/8" to 1/4"	0.74
FCR-84	1/2" to 1/4"	0.88
FCR-86	1/2" to 3/8"	0.88
<i>FCR-106</i>	5/8" to 3/8"	0.74
<i>FCR-108</i>	5/8" to 1/2"	0.74

Part No.	OD Tube In/Out	List Price £ (Each)
<i>FCR-126</i>	3/4" to 3/8"	1.66
<i>FCR-128</i>	3/4" to 1/2"	1.66
<i>FCR-1210</i>	3/4" to 5/8"	1.66
<i>FCR-1410</i>	7/8" to 5/8"	1.09
<i>FCR-1412</i>	7/8" to 3/4"	1.09

Reducer (Copper to Copper)



Part No.	OD Tube In/Out	List Price £ (Each)
<i>CCR-54</i>	5/16" to 1/4"	1.92
CCR-64	3/8" to 1/4"	1.92
<i>CCR-84</i>	1/2" to 1/4"	0.65
<i>CCR-86</i>	1/2" to 3/8"	0.62
<i>CCR-106</i>	5/8" to 3/8"	0.62
<i>CCR-108</i>	5/8" to 1/2"	0.62
<i>CCR-126</i>	3/4" to 3/8"	1.57

Part No.	OD Tube In/Out	List Price £ (Each)
<i>CCR-128</i>	3/4" to 1/2"	1.57
<i>CCR-1210</i>	3/4" to 5/8"	1.57
<i>CCR-1410</i>	7/8" to 5/8"	1.08
<i>CCR-1412</i>	7/8" to 3/4"	1.08
<i>CCR-148</i>	7/8" to 1/2"	1.08
<i>CCR-1814</i>	1 1/8" to 7/8"	2.03

Short Elbow 90° (Copper to Copper)



Part No.	OD Tube In	List Price £ (Each)
SE-4	1/4"	0.92
SE-6	3/8"	0.92
SE-8	1/2"	0.85
<i>SE-10</i>	5/8"	0.40

Part No.	OD Tube In	List Price £ (Each)
<i>SE-12</i>	3/4"	2.46
<i>SE-14</i>	7/8"	0.92
<i>SE-18</i>	1 1/8"	2.19

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Copper Tube, Fittings & Refrigerant **04**

Copper Fittings

Part Numbers in *italic* are not always available off the shelf. Please contact the sales office for availability.

Short Elbow 45° (Copper to Copper)

Part No.	OD Tube In	List Price £ (Each)	Part No.	OD Tube In	List Price £ (Each)
<i>HE-14</i>	1/4"	3.60	<i>HE-10</i>	5/8"	0.74
<i>HE-18</i>	3/8"	3.20	<i>HE-12</i>	3/4"	3.70



Long Elbow 90° (Copper to Copper)

Part No.	OD Tube In	List Price £ (Each)	Part No.	OD Tube In	List Price £ (Each)
<i>LB-4</i>	1/4"	1.91	<i>LB-12</i>	3/4"	2.22
<i>LB-6</i>	3/8"	1.91	<i>LB-14</i>	7/8"	2.80
<i>LB-8</i>	1/2"	2.31	<i>LB-18</i>	1 1/8"	4.05
<i>LB-10</i>	5/8"	2.05	<i>LB-22</i>	1 3/8"	6.41



P Trap (Copper to Copper)

Part No.	OD Tube In	List Price £ (Each)	Part No.	OD Tube In	List Price £ (Each)
<i>PT-10</i>	5/8"	12.25	<i>PT-18</i>	1 1/8"	20.27
<i>PT-12</i>	3/4"	17.50	<i>PT-22</i>	1 3/8"	32.10
<i>PT-14</i>	7/8"	14.44	<i>PT-26</i>	1 5/8"	48.64



Copper Flare Gasket

Part No.	Flare	List Price £ (Each)
<i>B2-4</i>	1/4"	0.18
<i>B2-6</i>	3/8"	0.22
<i>B2-8</i>	1/2"	0.25
<i>B2-10</i>	5/8"	0.25



Copper Bonnet

Part No.	Flare	List Price £ (Each)
<i>B1-4</i>	1/4"	0.18
<i>B1-6</i>	3/8"	0.22
<i>B1-8</i>	1/2"	0.22
<i>B1-10</i>	5/8"	0.22



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04 Copper Tube, Fittings & Refrigerant

Copper Fittings



Reducing Tee (Copper to Copper to Copper)

Part No	Size Run-Run-Branch	List Price £ (Each)
RT-2	1/4X1/4X3/8"	5.80
RT-3	3/8X3/8X5/8"	3.51
RT-4	3/8x3/8x1/2"	5.63
RT-5	3/8x1/4x3/8"	4.92
RT-6	3/8x3/8x1/4"	4.32
RT-7	3/8x1/4x1/4"	5.33
RT-9	1/2x1/2x5/8"	3.51
RT-10	1/2x3/8x1/2"	5.48
RT-11	1/2x1/4x1/2"	5.57
RT-12	1/2x1/2x3/8"	4.03
RT-13	1/2x3/8x3/8"	5.57
RT-14	1/2x1/2x1/4"	4.03
RT-16	1/2x3/8x1/4"	5.57
RT-17	5/8x5/8x1.1/8"	5.57
RT-18	5/8x5/8x7/8"	3.20
RT-20	5/8x1/2x5/8"	4.46
RT-21	5/8x3/8x5/8"	4.40
RT-22	5/8x5/8x1/2"	3.46
RT-23	5/8x1/2x1/2"	4.46
RT-25	5/8x5/8x3/8"	3.46
RT-27	5/8x3/8x3/8"	4.46
RT-28	5/8x5/8x1/4"	3.46
RT-29	3/4x3/4x7/8"	3.18
RT-32	3/4x5/8x5/8"	5.48
RT-34	3/4x3/4x1/2"	5.68

Part No	Size Run-Run-Branch	List Price £ (Each)
RT-36	3/4x3/4x3/8"	5.68
RT-37	7/8x7/8x1.1/8"	5.57
RT-39	7/8x5/8x7/8"	1.97
RT-40	7/8x1/2x7/8"	1.97
RT-41	7/8x7/8x3/4"	1.57
RT-42	7/8x3/4x3/4"	3.55
RT-43	7/8x7/8x5/8"	1.57
RT-44	7/8x5/8x5/8"	1.97
RT-45	7/8x1/2x5/8"	1.97
RT-46	7/8x7/8x1/2"	1.57
RT-47	7/8x5/8x1/2"	1.97
RT-48	7/8x1/2x1/2"	1.97
RT-49	7/8x7/8x3/8"	1.57
RT-50	1.1/8x1.1/8x1.3/8"	11.49
RT-51	1.1/8x7/8x1.1/8"	6.11
RT-52	1.1/8x5/8x1.1/8"	6.11
RT-53	1.1/8x1.1/8x7/8"	5.18
RT-54	1.1/8x7/8x7/8"	6.11
RT-55	1.1/8x5/8x7/8"	6.11
RT-56	1.1/8x1.1/8x3/4"	5.18
RT-57	1.1/8x1.1/8x5/8"	5.18
RT-58	1.1/8x7/8x5/8"	6.11
RT-59	1.1/8x5/8x5/8"	6.11
RT-60	1.1/8x1.1/8x1/2"	5.18

Parts in **BOLD** generally available ex-stock



Equal Tee (Copper to Copper to Copper)

Part No	Size Run-Run-Branch	List Price £ (Each)
ET-3	3/16"	2.62
ET-4	1/4"	2.68
ET-5	5/16"	2.68
ET-6	3/8"	2.68
ET-8	1/2"	2.03
ET-10	5/8"	0.69
ET-12	3/4"	4.46
ET-14	7/8"	1.69

Part No	Size Run-Run-Branch	List Price £ (Each)
ET-18	1.1/8"	4.92
ET-22	1.3/8"	7.18
ET-26	1.5/8"	10.87
ET-34	2.1/8"	16.97
ET-42	2.5/8"	21.55
ET-50	3.1/8"	53.43
ET-58	3.5/8"	127.78
ET-66	4.1/8"	112.51

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Return Bend (Copper to Copper)

Part No	Size x Centres	List Price £ (Each)
RTB-2	3/8x1.1/4"	1.25
RTB-3	3/8x1.1/2"	1.25
RTB-4	1/2x1.1/2"	1.71
RTB-6	1/2x2.0"	1.71
RTB-7	5/8x2.1/2"	3.20

Part No	Size x Centres	List Price £ (Each)
RTB-9	3/4x2.1/4"	5.55
RTB-10	7/8x2.1/2"	7.01
RTB-11	1.1/8x3.0"	12.84
RTB-12	1.3/8x4.0"	20.21



Copper End Caps

Part No	Size	List Price £ (Each)
EC-4	1/4"	0.37
EC-6	3/8"	0.37
EC-8	1/2"	0.58
EC-10	5/8"	0.26
EC-12	3/4"	0.62

Part No	Size	List Price £ (Each)
EC-14	7/8"	0.51
EC-18	1.1/8"	1.23
EC-22	1.3/8"	1.74
EC-26	1.5/8"	2.55



Short Elbow 90° (Fitting to Copper)

Part No	Size	List Price £ (Each)
SEF-4	1/4"	2.25
SEF-6	3/8"	2.25
SEF-8	1/2"	1.29
SEF-10	5/8"	0.62
SEF-12	3/4"	2.54
SEF-14	7/8"	1.42
SEF-18	1.1/8"	3.40

Part No	Size	List Price £ (Each)
SEF-22	1.3/8"	5.18
SEF-26	1.5/8"	6.71
SEF-34	2.1/8"	14.63
SEF-42	2.5/8"	24.39
SEF-50	3.1/8"	36.22
SEF-58	3.5/8"	162.49



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04 Copper Tube, Fittings & Refrigerant

Brass Fittings



Flare Nuts

Part No.	OD Tube In	List Price £ (Each)
NS4-4	1/4"	0.56
NS4-6	3/8"	0.65
NS4-8	1/2"	0.77
NS4-10	5/8"	0.99
NS4-12	3/4"	1.79



Reducing Flare Nuts

Part No.	OD Tube In	List Price £ (Each)
NRS4-64	3/8" to 1/4"	0.65
NRS4-86	1/2" to 3/8"	0.77
NRS4-108	5/8" to 1/2"	0.96
NRS4-1210	3/4" to 5/8"	1.79



Male Flare Union

Part No.	OD Tube In Flare	List Price £ (Each)
U2-4	1/4"	1.10
U2-6	3/8"	1.64
U2-8	1/2"	1.86
U2-10	5/8"	2.41



Male Adapter

Part No.	OD Tube In Flare	NPT	List Price £ (Each)
U1-4A	1/4"	1/8"	1.20
U1-4B	1/4"	1/4"	1.35
U1-6A	3/8"	1/8"	1.52
U1-6B	3/8"	1/4"	1.75

Part Numbers in bold are generally available off the shelf. Please contact the sales office for availability.

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Equal Flare Tee

Part No.	Flare			List Price £ (Each)
	1	2	3	
T2-4	1/4"	1/4"	1/4"	1.80
T2-6	3/8"	3/8"	3/8"	3.75
T2-8	1/2"	1/2"	1/2"	3.40
T2-10	5/8"	5/8"	5/8"	5.27



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Male Run Tee

Part No.	Flare			List Price £ (Each)
	1	2	3	
T1-4A	1/4"	1/4"	1/8"	1.85
T1-4B	1/4"	1/4"	1/4"	2.52
T1-6B	3/8"	3/8"	1/4"	2.32



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Part numbers in bold are generally available from stock. Please contact the sales office for availability

Euro Flare Fittings

Female brass flare fitting with copper gasket for guaranteed flare seal, with extended brass tube for solder connection to copper tube.

Part No.	Flare	OD Tube In	List Price £ (Each)
EURO-04	1/4"	1/4" SAE	1.75
EURO-06	3/8"	3/8" SAE	2.17
EURO-08	1/2"	1/2" SAE	2.50



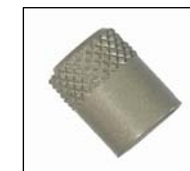
Euro Flare Fittings

Part No.	Flare	OD Tube In	List Price £ (Each)
US04-4	1/4"	1/4"	3.79
US04-5	3/8"	3/8"	2.80
US08-8	1/2"	1/2"	3.70
US04-10	5/8"	5/8"	4.40



Quick Seal Flare Caps

Part No.	Flare	List Price £ (Each)
NFT5-4	1/4"	0.44



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04 Copper Tube, Fittings & Refrigerant

Refrigerants



R134a

Part No.	Refrigerant	Type	Fill Weight (kg)	Price/ kg	List Price £
IN134	R134a	HFC	13.5		POA

Application Temperature Range

R-134a performance suffers at lower evaporator temperatures. In general it is not applied at temperatures below -10F, and it is not necessarily the most economical overall choice in some other applications. Traditional R-12 type applications have adopted several products as alternatives, including R-134a, R-22, R-404A/R-507, and numerous retrofit blends.

Lubrication

R-134a requires polyol ester (POE) lubricants, primarily for their ability to mix with HFC refrigerants. Traditional mineral oils and alkylbenzene do not mix with HFCs and will cause compressor failures. In addition, automotive air conditioning systems may also use polyalkaline glycol (PAG) lubricants (not typically seen in stationary equipment). Both POEs and PAGs will absorb moisture, and hold onto it, to a much greater extent than traditional lubricants. The moisture will promote reactions in the lubricant as well as the usual problems associated with water (corrosion, acid formation, etc.). The best way to dry a wet HFC system is to use a filter drier - run the system and change the drier - instead of relying on evacuation to clear the water.

Retrofitting Considerations

Equipment built for R-12 will be sized a bit too small compared to equipment built for R-134a. In order to do the same job an R-134a system will need a larger compressor and larger heat exchangers. As a result a system which is retrofit from R-12 to R-134a will have lower capacity (run longer) and will probably develop higher head pressures (not enough condenser area). The lubricant will also need to be flushed and replaced with POE (residual mineral oil content less than 5%).

R404A

Part No.	Refrigerant	Type	Fill Weight (kg)	Price/ kg	List Price £
IN404	R404A	HFC	10.9		POA

Application Temperature Range

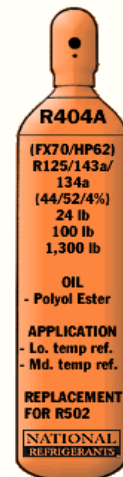
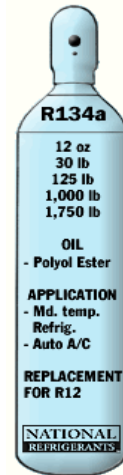
A blend of R-125, R-143a, and R-134a intended for low and medium temperature refrigeration applications where R-502 was previously used. Most new equipment has been built for R-404A (and R-507 interchangeably).

Lubrication

R-404A requires polyol ester (POE) lubricant, which is usually charged into new equipment. If retrofitting existing equipment the original oil must be flushed and replaced with POE.

Retrofitting Considerations

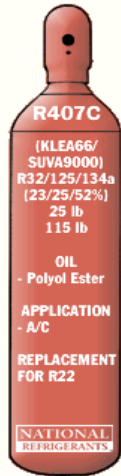
It is also possible to retrofit R-502 systems with R-404A. R-404A has slightly lower pressures than R-507 (from the small amount of R-134a added), and generally both blends have slightly higher pressures than 502.



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R407C



Part No.	Refrigerant	Type	Fill Weight (kg)	Price/kg	List Price £
IN407	R407C	HFC	11.3		POA

Application Temperature Range

A blend of R-32, R-125, and R-134a which has very similar properties to R-22 in air conditioning equipment. There is a slight decrease in capacity and efficiency, however R-407C can be used in essentially the same equipment to perform the same job with only minor engineering modifications.

It can also be used in medium temp R-22 refrigeration systems. R-407C has a 10F temperature glide. New systems built with R-407C must have POE lubricants, and retrofitted R-22 systems would need the residual oil flushed with POE.

Refrigerant replacement Guide

Refrigerant - Sold in non-returnable bottles

Part No.	Refrigerant	Name	Fill Weight (kg)	Price/kg	List Price £
IN49	R413A	ISCEON 49	R12 Drop In	12.5	POA
IN49 (13.7KG)	R413A	ISCEON 49	R12 Drop In	13.7	POA
IN59	R417A	ISCEON 59	R22 Drop In	12.5	POA

The Isceon drop-ins can be used with existing oils if they are in good condition and do not always require specific component changes.

Old	Alternative	Oil type	Drop-In	Application
R12	R134a	POE	No	medium
	Isceon 49	MO, AB,POE	Yes	medium
R22	R134a	POE	No	medium
	Isceon 59	MO, AB,POE	Yes	low/med/high
	R404a	POE	No	low
	R407C	POE	No	med/high
R410A	R410A	POE	No	med/high
	R410A	POE	No	med/high
R502	R404a	POE	No	med/low
	Isceon 69L	MO, AB,POE	Yes	low/med

04 Copper Tube, Fittings & Refrigerant

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