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B-	Fittings: - Flare and Solder.
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D-	Shut off Valves, Vibration Eliminators, Accumulators and Oil Separators.
E-	Thermostats, Pressure Switches and Fan Speed Controls.
F-	Expansion Valves, Solenoid Valves Water Valves and Pressure Controls.
G-	Defrost Heaters and Condensers.
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I-	Compressors.
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Sales Office: 01752 894 777

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For technical assistance with the selection of any replacement items or a detailed quotation for an installation package i.e. Evaporators, Condensing Units, Condensers or a Pipe work layout please contact our technical sales department on 01752 894777 or E-Mail: info@ClimateControlsandspares.co.uk

Capillary Tube

Refrigeration quality annealed Capillary Tube in 30m Coils

Code	Bore		Wall
A710	.026" i.d.	x	.022"
A711	.031	x	.022
A712	.036	x	.0195
A713	.042	x	.0215
A714	.047	x	.019
A715	.052	x	.019
A716	.064	x	.023



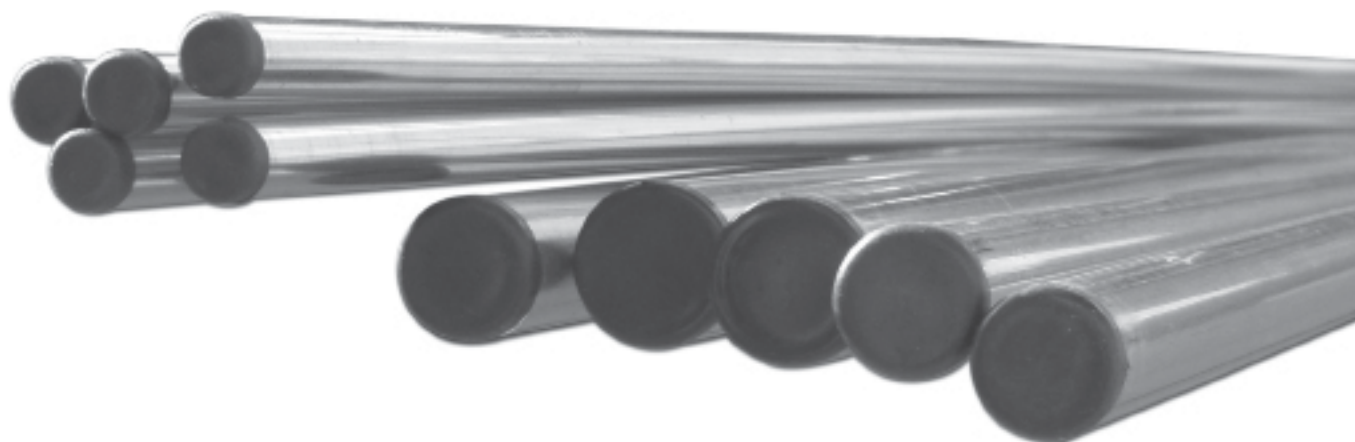
Refrigeration Quality Copper Tube

Copper Tube manufactured to BS2871/2 (refrigeration quality).

The coils are soft, the straights up to 1-3/8 are half hard and above this the tube is hard.

Tube Wall Size:

SWG	=	Inch	=	mm
22g	=	0.028	=	0.71
21g	=	0.032	=	0.81
20g	=	0.036	=	0.91
19g	=	0.040	=	1.02
18g	=	0.048	=	1.22
16g	=	0.064	=	1.63
14g	=	0.080	=	2.03
12g	=	0.104	=	2.64



Copper Tube

Code Size Gauge

15 metre coil

A731	3/16	x	22
A732	1/4	x	22
A733	5/16	x	22
A734	3/8	x	21
A735	1/2	x	21
A736	5/8	x	20
A737	3/4	x	19
A738	7/8	x	19

30 metre coil

A741	1/4" o.d.	x	21g
A742	5/16	x	22
A743	3/8	x	21
A744	1/2	x	21
A745	5/8	x	20

3 metre straight

A750	3/8" o.d.	x	21g
A751	1/2	x	20
A752	5/8	x	20
A753	3/4	x	19
A803	3/4	x	18
A804	7/8	x	18
A755	1-1/8	x	18
A805	1-1/8	x	16
A756	1-3/8	x	18
A806	1-3/8	x	16
A757	1-5/8	x	18
A807	1-5/8	x	16
A758	2-1/8	x	18
A759	2-5/8	x	16
A760	3-1/8	x	16

6 metre straight

A764	3/8" o.d.	x	21g
A765	1/2	x	20
A766	5/8	x	20
A767	3/4	x	19
A823	3/4	x	18
A824	7/8	x	18
A769	1-1/8	x	18
A825	1-1/8	x	16
A770	1-3/8	x	18
A826	1-3/8	x	16
A771	1-5/8	x	18
A772	2-1/8	x	18
A780	1-5/8	x	16
A781	2-1/8	x	16
A782	2-1/8	x	14
A773	2-5/8	x	16
A783	2-5/8	x	14
A784	2-5/8	x	12
A774	3-1/8	x	16
A785	3-1/8	x	14
A786	3-1/8	x	12
A787	3-5/8	x	16
A788	3-5/8	x	14
A789	3-5/8	x	12
A790	4-1/8	x	16
A791	4-1/8	x	14



Please note: Copper Tube prices are based on the L.M.E. rate and therefore we cannot guarantee to hold prices.

Tube Insulation

Class "0" sleeve insulation material. Meets both class "1" and class "0" building regulations to BS 476 parts 6 & 7.

Code Bore Lengths/Carton

2m Length x 9mm wall

A355	06-9	1/4" i.d.	135
A356	10-9	3/8	95
A357	12-9	1/2	85
A358	15-9	5/8	70
A359	20-9	3/4	55
A360	22-9	7/8	50
A361	28-9	1-1/8	40
A362	35-9	1-3/8	30
A363	42-9	1-5/8	25
A364	54-9	2-1/8	22

2m Length x 13mm wall

A366	06-13	1/4" i.d.	72
A367	10-13	3/8	65
A368	12-13	1/2	60
A369	15-13	5/8	50
A370	20-13	3/4	40
A371	22-13	7/8	35
A372	28-13	1-1/8	30
A373	35-13	1-3/8	24
A374	42-13	1-5/8	19
A375	54-13	2-1/8	15
A376	67-13	2-5/8	13
A377	80-13	3-1/8	10

2m Length x 19mm wall

A380	10-19	3/8" i.d.	40
A381	12-19	1/2	35
A382	15-19	5/8	30
A383	20-19	3/4	25
A384	22-19	7/8	22
A385	28-19	1-1/8	20
A386	35-19	1-3/8	15
A387	42-19	1-5/8	14
A388	54-19	2-1/8	11
A389	67-19	2-5/8	8
A390	80-19	3-1/8	7
A378	89-19	3-5/8	7

2m Length x 25mm wall

A331	15-25	5/8	18
A332	20-25	3/4	15
A333	22-25	7/8	15
A334	28-25	1-1/8	13
A335	35-25	1-3/8	11
A336	42-25	1-5/8	9
A337	54-25	2-1/8	7
A338	67-25	2-5/8	5
A339	80-25	3-1/8	5
A340	89-25	3-5/8	5



EUROBATEX®

Tube Insulation

Supplied coiled in a carton to prevent wastage and reduce joints. Coil lengths vary with size – see below.

Code			Length
9mm wall			
A310	6-9	x	40 M
A311	8-9		37 M
A312	10-9		34 M
A313	12-9		31 M
A314	15-9		27 M
A315	20-9		20 M
A316	22-9		19 M
A317	28-9		14 M
13mm wall			
A320	6-13	x	26 M
A322	10-13		23 M
A323	12-13		18 M
A324	15-13		17 M
A325	20-13		15 M
A326	22-13		14 M
A327	28-13		10 M



Sheet Insulation

Code	Thickness
2m x 0.5m Sheet-Class O	
A401	9 mm
A402	13 mm
A403	19 mm
A404	25 mm

1m wide x Roll-Class O		
A392	6 mm	x 30 M
A393	9 mm	x 20 M
A394	13 mm	x 14 M
A395	19 mm	x 10 M
A396	25 mm	x 8 M
A397	32 mm	x 6 M

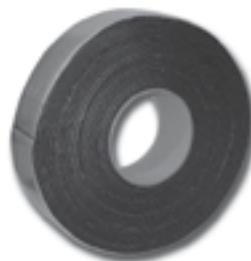


Accessories

Code	
Adhesive Tape Class O	
A410	10m Roll

Adhesive	
A415	250 ml c/w Brush
A416	500 ml tin

Paint	
A421	3/4 Litre Grey



Duct Insulation Tape

Duct sealing tape is an all purpose cloth reinforced tape, 2" wide.

Code	Style	Length
A119	Duct Tape	180 FT.



Polyurethane Foam

Code	
A131	Foam Sealant (568 ml Aerosol)
A132	Great Stuff (300 ml Aerosol)



Twist Nut Clips for Unistrut Channel or Threaded Rod

Select the size required from the table at the foot of the next page.
Suitable for use on vertical or horizontal channel and tested for temperatures between -40 and +140 °C.
Wall plugs are not recommended for use in the ceiling!



Supplied in packs of ten

Code	Model
Channel Clip to suit 41 mm channel	

A522	TNC/41CC/ 06
A523	TNC/41CC/ 08
A524	TNC/41CC/ 10
A525	TNC/41CC/ 20
A526	TNC/41CC/ 30
A527	TNC/41CC/ 40
A528	TNC/41CC/ 50
A529	TNC/41CC/ 60
A530	TNC/41CC/ 70
A531	TNC/41CC/ 80
A532	TNC/41CC/ 90
A533	TNC/41CC/100
A534	TNC/41CC/110



Stud Clip to suit 8 mm Threaded Rod

A536	TNC/08SC/ 06
A537	TNC/08SC/ 08
A538	TNC/08SC/ 10
A539	TNC/08SC/ 20
A540	TNC/08SC/ 30
A541	TNC/08SC/ 40
A542	TNC/08SC/ 50
A543	TNC/08SC/ 60
A544	TNC/08SC/ 70
A545	TNC/08SC/ 80
A546	TNC/08SC/ 90
A547	TNC/08SC/100
A548	TNC/08SC/110



Twist Nut Clips for Unistrut Channel or Threaded Rod

Select the size required from the table at the foot of the page.

Suitable for use on vertical or horizontal channel and tested for temperatures between -40 and +140 °C.
Wall plugs are not recommended for use in the ceiling!

Supplied in packs of ten



Code Model

Stud Clip to suit 10 mm Threaded Rod

A550	TNC/10SC/ 06
A551	TNC/10SC/ 08
A552	TNC/10SC/ 10
A553	TNC/10SC/ 20
A554	TNC/10SC/ 30
A555	TNC/10SC/ 40
A556	TNC/10SC/ 50
A557	TNC/10SC/ 60
A558	TNC/10SC/ 70
A559	TNC/10SC/ 80
A560	TNC/10SC/ 90
A561	TNC/10SC/100
A562	TNC/10SC/110

Wall Plug Clip

A850	TNC/11WP/ 06
A851	TNC/11WP/ 08
A852	TNC/11WP/ 10
A853	TNC/11WP/ 20
A854	TNC/11WP/ 30
A856	TNC/11WP/ 50
A857	TNC/11WP/ 60
A858	TNC/11WP/ 70
A859	TNC/11WP/ 80
A860	TNC/11WP/ 90
A862	TNC/11WP/110



Twist Nut Clip Sizing Chart

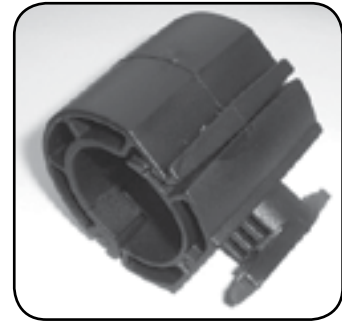
Tube Size	Tube Only	With 9mm Insulation	With 13mm Insulation	With 19mm Insulation
1/4	06	20	60	90
3/8	06	50	70	90
1/2	08	60	70	100
5/8	10	60	80	110
3/4	20	70	90	110
7/8	30	80	90	110
1-1/8	50	90	110	-
1-3/8	70	110	110	-
1-5/8	90	110	-	-
2-1/8	110	-	-	-

BBJ Quick Positioning Clips

BBJ QPC Clips are a easy to use pipe clip made from UV resistant plastic. They fit into both aluminium or unistrut channel with one single twist.

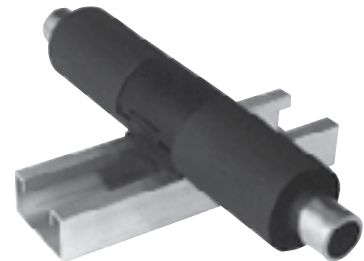
Supplied in packs of ten

BBJ
ENGINEERING LTD



Code Model

A250	1/4" Quick Positioning Clip
A251	3/8" Quick Positioning Clip
A252	1/2" Quick Positioning Clip
A253	5/8" Quick Positioning Clip
A254	3/4" Quick Positioning Clip
A255	7/8" Quick Positioning Clip
A256	1-1/8" Quick Positioning Clip
A257	1-3/8" Quick Positioning Clip



RPC Rapid Positioning Clip "Channel Clamps"

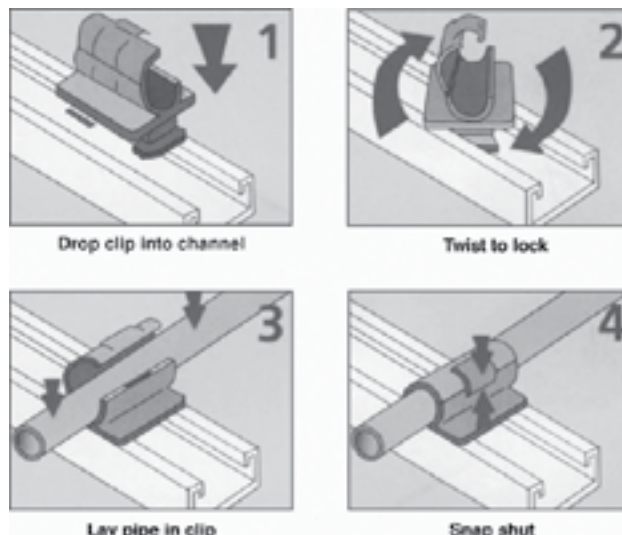
The RPC Channel Clamps fit standard aluminium and unistrut channel. They are a fast easy to install, one piece single handed fixing.



Supplied in packs of ten

Code Model

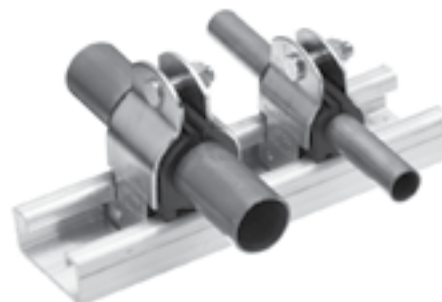
A215	3/8" Rapid Positioning Clip
A216	1/2" Rapid Positioning Clip
A217	5/8" Rapid Positioning Clip
A218	3/4" Rapid Positioning Clip
A219	7/8" Rapid Positioning Clip
A220	1-1/8" Rapid Positioning Clip



Tube Clamps

Tube clamps to fit 41 mm aluminium or galvanised steel channel.

Code	To suit	
A199	1/4"	Tube Clamp
A201	3/8	
A202	1/2	
A203	5/8	
A204	3/4	
A205	7/8	
A206	1-1/8	
A207	1-3/8	
A208	1-5/8	
A209	2-1/8	
A210	2-5/8	
A211	3-1/8	
A212	3-5/8	
A213	4-1/8	



Rubber Lined Clamps

Clamps for mounting on 10mm threaded rod.

Code	Model	To suit
A230	EC/8/10	15-20
A231	EC/8/11	21-25
A232	EC/8/12	26-31
A233	EC/8/13	32-36
A235	EC/8/14	42-46
A236	EC/8/15	46-50
A237	EC/8/16	50-54
A238	EC/8/17	56-60
A239	EC/8/18	68-73
A240	EC/8/19	75-80
A241	EC/8/20	84-89
A242	EC/8/22	97-102



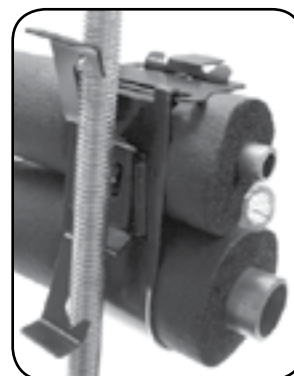
Squeezy Fit Supports

These supports fit onto either 8mm or 10mm threaded rod.

By simply squeezing the tips together, the spring steel rod hanger can be fitted or adjusted in seconds, even after the refrigerant pipes have been installed.

Supplied in packs of ten.

Code	Model	To suit
A900	TRH-2	3/8 & 5/8
A901	TRH-3	1/2 & 7/8
A902	TRH-4	5/8 & 1-1/8



Flow and Return Clamps

Asymmetric design provides a perfect fit for any one of four pairs of flow and return insulated refrigerant pipes. An 8mm clearance hole allows the clamp to be fixed directly to any flat surface.

Supplied in packs of ten.

Code	Model	To suit
A905	FRC-1	1/4 & 1/2
A906	FRC-2	3/8 & 5/8
A907	FRC-3	1/2 & 7/8
A908	FRC-4	5/8 & 1-1/8



Mounting Channel

Code	To suit	Dimensions
Aluminium Plain Channel		
A600	3 metre x Channel	22 x 41mm
Pre Galvanised Slotted Channel		
A603	3 metre x CN21A3 Medium Gauge	21 x 41mm
A604	3 metre x CN21A3 Light Gauge	21 x 41mm
A605	3 metre x CN41A3 Medium Gauge	41 x 41mm
A606	3 metre x CN41A3 Light Gauge	41 x 41mm
A607	6 metre x CN41A3 Medium Gauge	41 x 41mm
Channel Capping		
A610	3m x CY413/B Black PVC	
A612	CZ21/B 21 x 41mm Black PVC End Cap	
A613	CZ41/B 41 x 41mm Black PVC End Cap	



Cantilever Arms

Code	Type	Max Load *
A615	SCT-150 mm Long	836 kg
A616	SCT-300	418
A617	SCT-450	275
A618	SCT-600	209
A619	SCT-750	167
A620	SCT-900	110

* = Uniformly distributed load (Kgf)



Channel Accessories

Code	Type	Diameter
3 metre Length Threaded Rod		
A628	TR-063	6 mm
A629	TR-083	8
A630	TR-103	10
A631	TR-123	12

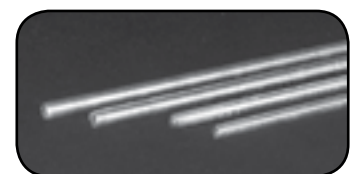
Lightweight Beam Clamp

A632 BD10 Beam Clamp to suit

Spring Loaded Channel Nuts

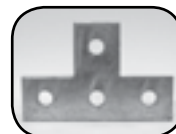
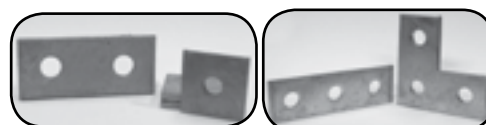
A633	SNS 06	6 mm
A634	SNS 08	8
A635	SNS 10	10
A636	SNS 12	12
A638	SNL 06	6 mm
A639	SNL 08	8
A640	SNL 10	10
A641	SNL 12	12

Use SNS (Short Spring) for 21 mm deep channel.
Use SNL (Long Spring) for 41 mm.



Channel Accessories

Code	Type	Dimensions	
Plain Channel Nuts			
A643	SNA 06		6 mm
A644	SNA 08		8
A645	SNA 10		10
A646	SNA 12		12
HT Set Screws			
A648	HS 625	6mm x 25 mm Long	
A650	HS 825	8mm x 25	
A652	HS1020	10mm x 20	
A654	HS1030	10mm x 30	
A656	HS1230	12mm x 25	
A658	HS1240	12mm x 25	
Hexigon Nuts			
A660	HEX 6		6 mm
A661	HEX 8		8
A662	HEX 10		10
A663	HEX 12		12
Flat Washers			
A665	FW 6		6 mm
A666	FW 8		8
A667	FW 10		10
A668	FW 12		12
Shakeproof Washers			
A670	SPW 6		6 mm
A671	SPW 8		8
A672	SPW10		10
A673	SPW12		12
Penny Washers			
A675	PW25 6	6mm x 25 mm long	
A676	PW25 8	8mm x 25	
A677	PW32 8	10mm x 32	
A678	PW25 10	10mm x 25	
A679	PW32 10	12mm x 32	
Adaptor Plates			
A682	CS1/10	One Hole	40 x 40 mm
A683	CS2	Two Hole	87 x 40 mm
A684	CS3	Three Hole	123 x 40 mm
A687	CS7	Three Hole	Flat Angle
A690	CS8	Four Hole	Flat Tee
A692	CS12	Two Hole	Angle
A693	CS13	Three Hole	Angle
Roofing Nuts and Bolts (Pack of 100)			
A580	M6 x 12		
A581	M6 x 20		
A582	M6 x 40		
A583	M8 x 25		
A584	M8 x 50		
Threaded Rod Connectors			
A624	M6		
A625	M8		
A626	M10		



Fixings

Code	Model	Style
Expanding Bolts		
A568	M8-10P	Thread Projecting
A569	M10-10P	
A571	M8-10L	Loose Bolt Type
A572	M10-10L	
A574	WA-8	Wedge Anchor
A575	WA-10	



Self Tapping Screws (Pack of 100)

A586	10mm x No 8	Pozi Drive Pan Head
A587	12mm x No 8	
A588	61275	305 piece Box of Assorted Sizes



305 pc Set

Self Drilling Screws (Pack of 500)

A695	13 mm Long
A696	19 mm
A697	Magnetic Nut Spinner 5/16" to suit above



Plasterboard Fixings (Pack of 100)

A698	38 mm Long	Zinc Alloy complete with Screws
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Wood Screws (Pack of 100)

A589	1"	x	No 6 Pozi Drive Counter Sunk Head
A590	1"	x	No 8
A591	1-1/4"	x	No 8
A592	1-1/2"	x	No 8
A593	2"	x	No 10
A594	2-1/2"	x	No 10



Plastic Wall Plugs (Pack of 100)

A595	Red Plug	To suit Screw Sizes 6, 8 and 10
A598	Brown Plug	To suit Screw Sizes 10, 12 and 14



Wall Plug and Screw Sets

A596	Trade Tub 1	400 x 2" No. 10 Twin Threaded Screws and Brown Plugs, 1 x 7.0 mm Masonry Bit and 1 x Pozi No.2 Driver Bit
A599	Trade Tub 2	500 x 1-1/2" No 8 Twin Threaded Screws and Red Plugs, 1 x 6.0 mm Masonry Bit and 1 x Pozi No.2 Driver Bit



Cable Tray

Pre-galvanised cable tray. **Other finishes available.**
Medium duty tray has a return flange for extra strength.

Code Size

3 Metre Length – Light Duty

A490	50 mm wide x 12mm flange
A491	75 mm
A492	100 mm
A493	150 mm

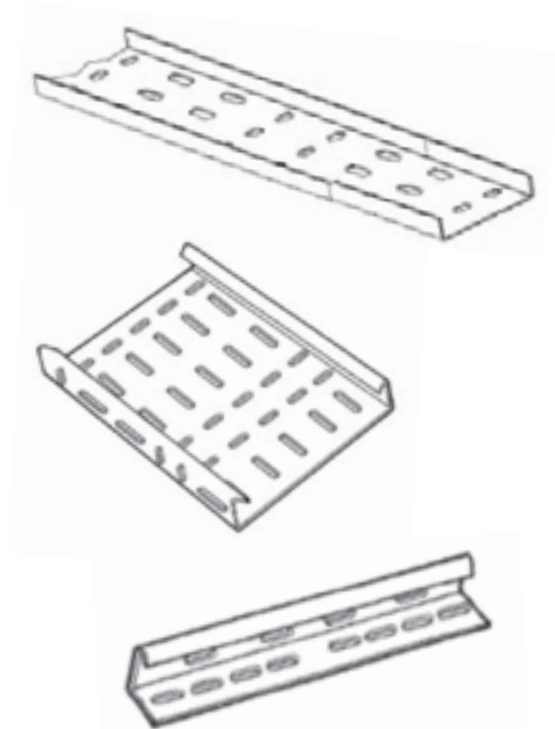
3 Metre Length – Medium Duty

A500	75 mm wide x 25mm flange
A501	100 mm
A502	150 mm
A503	225 mm
A504	300 mm
A505	450 mm

Coupling Kits

A520	Coupling Kit for 25mm Tray
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Bends, Tees, Risers, Reducers and Cross Overs to suit all of the above Cable Tray are available to order.



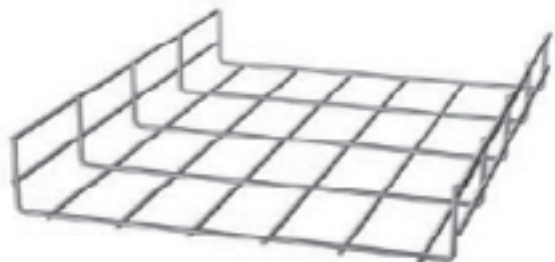
Basket Tray

Basket tray is constructed from mesh wire and offers a much lighter installation than conventional cable tray. The lighter weight makes fixing and hanging easier and most jobs can be handled by one person giving rapid installation of pipe work, condensate lines and cables. Cutting for bends or risers can be done with bolt croppers much faster than cutting solid tray with a hacksaw. The pipe work can be viewed from below allowing good visibility of the identification labels that are now recommended. Inspection and leak checking is also possible from below.

Code Size

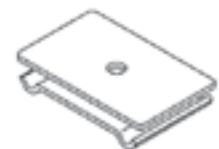
55mm Basket Tray – 3M Length

A010	50 mm
A011	100 mm
A012	150 mm
A013	200 mm
A014	300 mm
A015	400 mm
A016	500 mm
A017	600 mm



Basket Tray Accessories

Code	Model	To Fit
Quick Fit Connector (pack of 50)		
A020	GRS3.9	50 to 100
A021	GRS4.4	200 & 300
A022	GRS4.8	400 to 600
Joint Connector (pack of 25)		
A025	GSV34	All Sizes
Clamping Piece (pack of 100)		
A028	GKS34	All Sizes
Corner Connector (pack of 100)		
A030	GEV36	All Sizes
Central Hanger (pack of 25)		
A035	GMA/M6	6mm Rod
A036	GMA/M8	8mm
A037	GMA/M10	10mm
Side Holder (pack of 2)		
A040	SH	All Sizes
Channel Clamp (pack of 50)		
A043	GKS60	All Sizes
Stand Off Bracket (each)		
A045	DBL50/100	100mm Tray
A046	DBL50/150	150mm
A047	DBL50/200	200mm
A048	DBL50/300	300mm
A049	DBL50/400	400mm
Support Bracket (each)		
A060	TPSA/145	
A061	TPSA/245	
A062	TPSA/345	
A063	TPS/445	
A065	TPS/645	
A066	TPD/145	
A067	TPD/245	
A068	TPD/345	
Spacer (pack of 20)		
A080	DS4	All Brackets



Nylon Screwed Rod

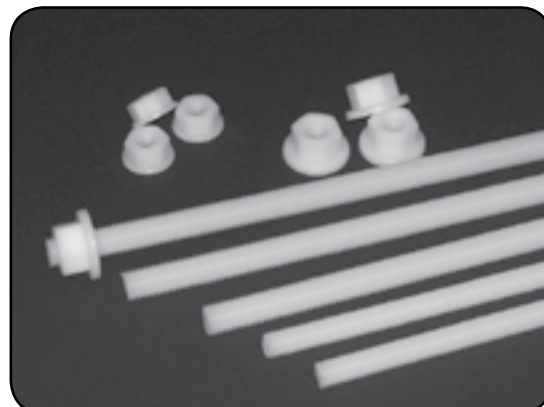
Code	Size
A450	M10 x 1M Screwed Rod
A451	M12 x 1M
A455	M10 Washer Faced Nut
A456	M12

Recommended maximum safe working loads
for Nylon Threaded Rod.

M10 - 80kg

M12 - 120kg

Please note figures quoted are for vertical loads only.
No data is available for inclined or horizontal loads.
Care should be taken not to over tighten nuts, they should
be tightened by hand and then given half a turn with a spanner.



Power Hoist

Designed by an AC & R engineer to make life safer and easier when lifting
condensing units. This invention saves you time and money in hiring expensive
lifting equipment and is readily available when you want it.

The SUBO PW-125 hoist is suitable to use with Wall Bracket Kits and Unistrut.

Code	Type
A308	SUBO PW-125 (240v)
A309	SUBO PW-125 (110v)

Maximum lift = 125 kgs up to 11 metres high.

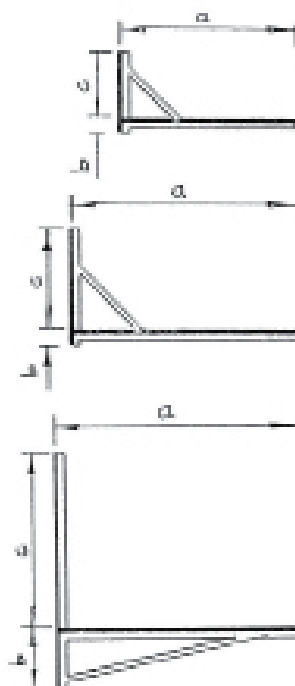


Wall Brackets

These Wall Brackets are reversible and
can be used for standing Condensing Units
on or hanging Evaporators from.
They are supplied in pairs and finished
in grey primer.

Code	Size
A290	700mm Reach
A291	900mm
A292	980mm

Dimensions	A290	A291	A292
a	700mm	900mm	980mm
b	60	65	250
c	260	385	690
b + c	320	450	940

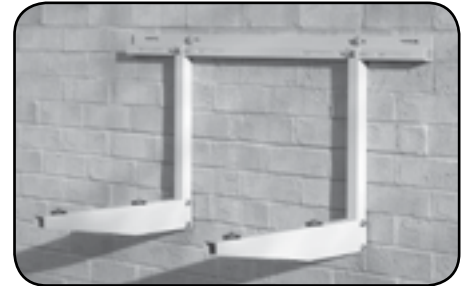


Wall Bracket Kits

These ready made, flat packed brackets offer a quick and easy method of supporting condensing unit on external walls. Dimensions and load capacities suit all brands of units. All the electro-galvanised steel components receive an 8-phase, epoxy-polyester powder coating, with a scratch resistant, textured finish.

Code	Type
A303	TYPE 1-60 kgs Bracket
A304	TYPE 1-90 kgs
A305	TYPE 1-140 kgs
A306	TYPE 2-90kgs Bracket
A307	TYPE 2-140kgs

Dimensions	A303	A304	A305	A306	A307
Reach	450mm	500mm	550mm	470mm	510mm
Height	400	500	550	530	580
Max. Load	60kgs	90kgs	140kgs	90kgs	140kgs



Snap-Fit Condensing Unit Brackets

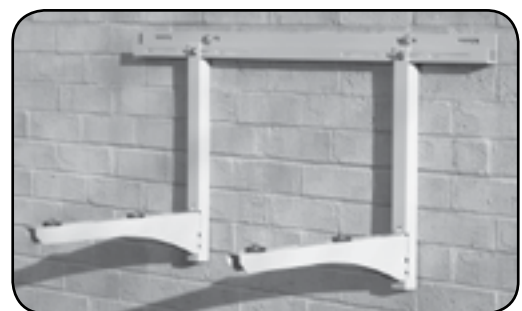
Easy-fit brackets incorporate an innovative, interlocking mechanism, enabling the arms to be joined to the uprights in a matter of seconds. A spring lock automatically secures the joint, preventing the arms from being dislodged accidentally.

These brackets are fitted with an integral, removable spirit level to make correct installation of the crossbar easier.

Code	Type
A287	TYPE 3- 90 kgs Bracket
A288	TYPE 3-140 kgs



Dimensions	A287	A288
Crossbar	900 mm	1100 mm
Upright	500	550
Support Arm	500	540
Max. Load	90 kgs	140 kgs



Condensing Unit Drip Trays

Drip trays to fit condensing unit brackets to prevent dripping water when Heat Pumps are on Defrost. Available in Metal or Plastic.

Code	Type
A275	Small - 800 x 400 x 50 mm
A276	Large - 1100 x 400 x 50 mm
A278	Small Plastic 790 x 390 mm
A279	Large Plastic 940 x 420 mm



Plastic Tray



Metal Tray

Condensing Unit Guards

Weather-protected, epoxy-polyester powder coating with a scratch-resistant, textured finish steel mesh guards in a colour to match most brands of condensing unit (RAL 7023) for protection of externally located condensing units against vandalism and accidental damage.

These four models have a unique sliding panel system which withstands repeated removal of panels for maintenance without damage. All panels can be removed by unscrewing a minimal amount of bolts which are Allen-headed for greater security.

You will find these Condensing Unit Guards both quick and easy for maintenance and easy to install. They suit all types of condensing units and come packaged in slim-line boxes for easier transport and storage.

Code Type Condensing Unit Guard

A260	CG-S	Small
A261	CG-M	Medium
A262	CG-L	Large
A263	CG-XL	Extra Large

Base Panel

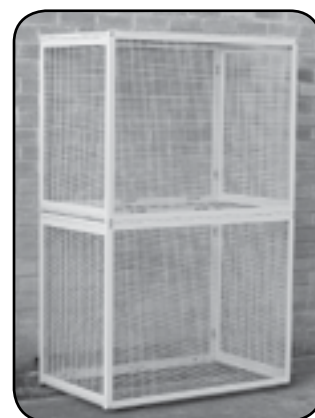
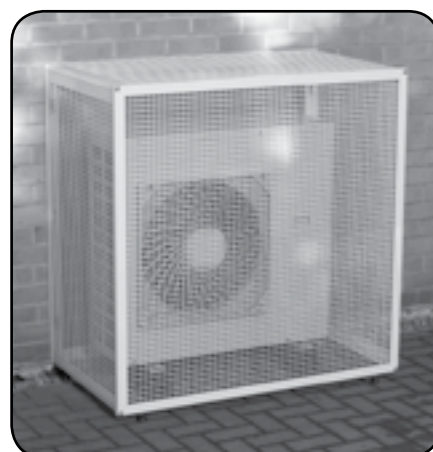
A264	Base Panel for Small Guard
A265	Base Panel for Medium/Large Guard
A266	Base Panel for Extra Large Guard

Front/Back Panel

A268	Front/Back Panel for Small Guard
A269	Front/Back Panel for Medium Guard
A270	Front Back/Panel for Large Guard
A271	Front/Back Panel for Extra Large Guard

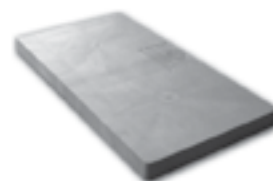
Dimensions:

	Internal Dimensions mm		
Small	720 (H)	1020 (W)	450 (D)
Medium	1120	1120	640
Large	1420	1120	640
Extra Large	1770	1120	640
	External Dimensions mm		
Small	750 (H)	1040 (W)	460 (D)
Medium	1150	1150	650
Large	1450	1150	650
Extra Large	1800	1150	650



Plastic Patio Slabs

Code	Size
A285	600 x 600 mm
A286	600 x 900 mm



Anti Vibration Material

Code	Type
A975	MPC-4 102 x 102 x 22 mm Pad
A976	MP18-C 457 x 457 x 22 mm Sheet
A977	Anti Vibration Strip 1000 x 75 x 15 mm Strip



Big Foot Systems

The Big Foot Support System is a simple and universal framework which can be used to support anything on a flat roof. It is designed to spread the weight of plant on delicate roof surfaces and enables maintenance of the roof without the costly removal of equipment from it.

The Big Foot is ideal for: Condensers and Packaged Units of all sizes, Split or VRV air Conditioning Systems, Ventilation Units, Pipework and Ductwork.

The Big Foot is simple and quick to assemble and adjust. Framework intersections are tightened into position to provide a rigid and sturdy structure. Supplied flatpack for easy transportation and constructed from Hot Dipped Galvanised Metalwork.

There are three basic modular frameworks available for supporting 2, 4 or 6 small condensing units. For flexibility all leg assemblies and cross bars on the modular framework slide up and down to the required location. For special requirements the frameworks may be double stacked. Modular frameworks come complete with 305² mm feet which are provided with anti-vibration mats to fit underneath.

Maximum load conditions: 305 mm foot 120 kgs

e.g: A two unit system with 4 feet would take a maximum weight of approximately 480 kgs

Total Leg Height: 375 mm (575 mm: stepped roof option)

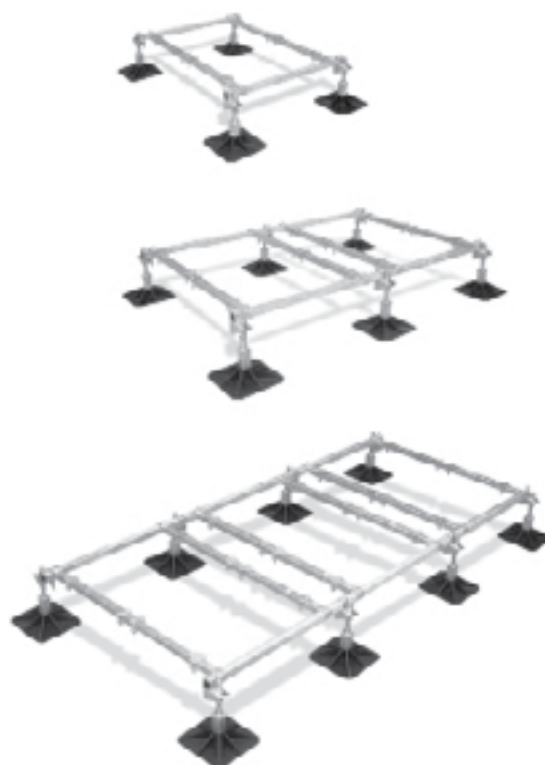
Height Adjustment: 245 mm – 350 mm floor to framework
(245 – 550 mm stepped roof option)

Please note: The manufacturer of these systems take no responsibility for the condition of the roof on which their equipment is to be used. You must ensure that the substrate on which the Big Foot is intended for use is structurally sound enough to take the weight and point loadings they have indicated.

The Big Foot products must be installed in line with the guarantees and recommendations of the manufacturer of the roofing system. The manufacturer of PVC membranes should advise on the susceptibility migration of plasticizers and specific recommendations should be adhered to so that the roof guarantee is not affected.

Code	Type
A990	Big Foot 2
A991	Big Foot 4
A992	Big Foot 6

Dimensions	A990	A991	A992
Framework	1m x 1.3m	2m x 1.3m	3m x 1.3m
Weight	42 kgs	70 kgs	97 kgs



the complete solution



**BIG FOOT
SYSTEMS**

...to support building services and access equipment on a flat roof

free 48-hr
design service
available

www.bigfootsystems.co.uk



**A full range of pipe fixings to compliment Big Foot Systems
is available from BBJ Engineering**

**BBJ
ENGINEERING LTD**

H Frame - Multi Purpose Support

The H Frame Set offers a quick and economical solution to supporting pipework and ducting. Comes complete with 305 mm² or 450 mm² feet.

The kit includes: Two AV Mats, Two Feet, Two Unistrut Inserts, Two L Brackets, Four M10 Bolts and 4 Square Channel Nuts.

Please note: Kit does not include Unistrut.

Code		Size
A993	H Frame Set	305 mm ²
A994	H Frame Set	450 mm ²



Multi Foot - Multi Purpose Support

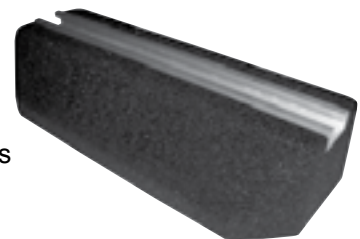
The Multi Foot comes in two sizes for supporting small or large pipework systems, cable trays and ductwork. The Multi Foot can accommodate 40mm wide channel horizontally, 40 x 40mm unistrut or vertical 12mm threaded rod which makes it a very versatile support system.

Code		Size
A995	Multi Foot 400	400 x 180 mm
A996	Multi Foot 600	600 x 200 mm
A997	Multi Foot 400 AV Mat	
A998	Multi Foot 600 AV Mat	



Fix-It Foot

The new Fix-It Foot is designed to support light loads, this 1 foot support has 40 x 20 mm aluminium channel recessed into the top face, allowing fixing of the services resting across the feet. Recesses in the underside allow for small debris on the roof surface. Ideal for supporting pipework, ducting, cable trays and even condensing units. Made from durable recycled rubber, they become great supports and act as a natural vibration insulator.



Code		Size
A982	Small Fix-It Foot	250 x 180 x 95 mm
A983	Medium Fix-It Foot	400 x 180 x 95 mm
A984	Large Fix-It Foot	600 x 220 x 95 mm

Condensing Unit Block

Available in 450mm and 1000mm lengths.
Now available with matching black end caps.
Each blocks comes complete with 2 bolts per foot.

Code	
A979	SB-450
A980	SB-1000
A981	End Cap to suit above



Available in 450mm
or 1000mm lengths.

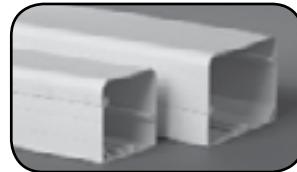
BBJ Economy Plastic Trunking

Easy to use Ivory coloured plastic trunking and accessories for professional installations.

BBJ
ENGINEERING LTD

Code Type Straight Duct

A911 D-70
A912 D-105



Duct End Caps

A914 -70
A915 -105



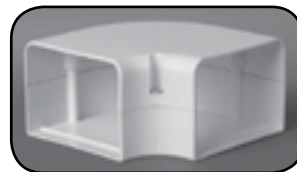
Outlet Cover

A916 WC-70
A917 WC-105



Elbow 90° (for Flat Surface)

A921 FB-70
A922 FB-405



Elbow 90° (for Internal Corner)

A926 EB-70
A927 EB-105



Elbow 90° (for External Corner)

A954 EIN-70
A955 EIN-105

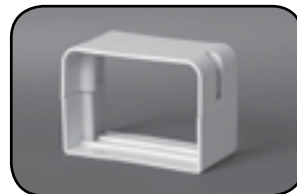
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Duct Couplers

A931 CP-70
A932 CP-105

£ 1.81
3.58



Tee Joint

A935 TJ-70

£ 19.26

Please note that the above items are also available in White to order only.



BBJ Economy Plastic Trunking

Easy to use Ivory coloured plastic trunking and accessories for professional use.

Code	Type
A939	FJ-70
A940	FJ-105

End Socket

A952	DE-70
A953	DE-105

Flat Wall Rosette

A964	FR-70
A965	FR-105

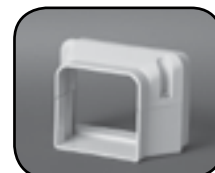
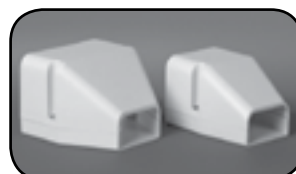
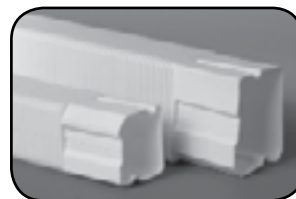
Ceiling Rosette

A970	WR-70
A971	WR-105

Reducer Joints

A968	RJ-105/70
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BBJ
ENGINEERING LTD



Please note that above items are available in White to order only.



BBJ
ENGINEERING LTD

Is your trunking whiter than white?



Full BBJ Economy Trunking Range now also available in **WHITE**...

So you can be proud to show your Trunking in public,
the versatile range of BBJ Economy Trunking is now also available in white!
Perfect for both simple and complex installations, the range offers maximum
installation flexibility with two sizes of trunking and all their matching accessories.
(Also available in Ivory)



Mini Lime Slimline & Mini Lime BBJ now also available with white trunking...

The Mini Lime - the original elbow pump - is the perfect condensate removal
partner, as two of the systems now come with the option of white trunking.
Both the Mini Lime 'BBJ' and 'Slimline' systems are now
offered with white or ivory trunking.
The Mini Lime pump is also available on its own.

Mini Lime Slimline system



For simple installations the
Slimline system is perfect
(Slimline is a non
extendable range of
trunking).

Mini Lime BBJ system



For both simple and more
complex installations the
BBJ system is ideal, and can be
integrated within the range
of BBJ Economy trunking.



MINI LIME

- Quick and easy to install, with
easy access for servicing
- Elbow ensures reservoir is held
horizontally for reliable operation
- Systems include all components
required. Pump, elbow, 800mm
trunking and ceiling plate
- Reversible for left and right-hand
installation flexibility

The NEW **"White"** BBJ Economy Trunking now available from
Climate Controls and Spares. Contact us for details.....

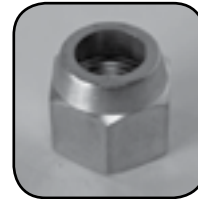
Flare Fittings

Code

Size

Flare Nuts

B001	NS4-3	3/16 flare
B002	NS4-4	1/4
B003	NS4-5	5/16
B004	NS4-6	3/8
B005	NS4-8	1/2
B006	NS4-10	5/8
B007	NS4-12	3/4



Reducing Flare Nuts

B010	NRS4-43	1/4	x	3/16
B011	NRS4-54	5/16	x	1/4
B012	NRS4-64	3/8	x	1/4
B013	NRS4-65	3/8	x	5/16
B014	NRS4-86	1/2	x	3/8
B015	NRS4-108	5/8	x	1/2
B016	NRS4-1210	3/4	x	5/8



Equal Flare Connectors

B019	U2-3	3/16 flare
B020	U2-4	1/4
B021	U2-5	5/16
B022	U2-6	3/8
B023	U2-8	1/2
B024	U2-10	5/8
B025	U2-12	3/4



Reducing Flare Connectors

B028	UR2-43	1/4	x	3/16
B029	UR2-54	5/16	x	1/4
B030	UR2-64	3/8	x	1/4
B031	UR2-65	3/8	x	5/16
B032	UR2-84	1/2	x	1/4
B033	UR2-86	1/2	x	3/8
B034	UR2-104	5/8	x	1/4
B035	UR2-106	5/8	x	3/8
B036	UR2-108	5/8	x	1/2
B037	UR2-126	3/4	x	3/8
B038	UR2-128	3/4	x	1/2
B039	UR2-1210	3/4	x	5/8



Flare Cap Nuts

B042	N5-3	3/16 flare
B043	N5-4	1/4
B044	N5-5	5/16
B045	N5-6	3/8
B046	N5-8	1/2



Equal Flare Elbow

B083	E2-4	1/4
B084	E2-6	3/8
B085	E2-8	1/2



Elbow, Male Flare x MPT

B090	E1-4A	1/4	x	1/8
B091	E1-4B	1/4	x	1/4



Flare Fittings

Code		Size		
Flare Reducer, Female x Male Flare				
B049	UR3-64	3/8	x	1/4
B050	UR3-84	1/2	x	1/4
B051	UR3-46	1/4	x	3/8
B052	UR3-106	5/8	x	3/8
B053	UR3-86	1/2	x	3/8
B054	UR3-48	1/4	x	1/2
B055	UR3-68	3/8	x	1/2
B056	UR3-108	5/8	x	1/2
B057	UR3-128	3/4	x	1/2
B058	UR3-610	3/8	x	5/8
B059	UR3-810	1/2	x	5/8
B060	UR3-1210	3/4	x	5/8
B061	UR3-812	1/2	x	3/4
B062	UR3-1012	5/8	x	3/4



Female Coupling, Male Flare x FPT				
B065	U3-4A	1/4	x	1/8
B066	U3-4B	1/4	x	1/4
B068	U3-6A	3/8	x	1/8
B069	U3-6B	3/8	x	1/4



Half Union, Male Flare x MPT				
B075	U1-4A	1/4	x	1/8
B076	U1-4B	1/4	x	1/4
B078	U1-6A	3/8	x	1/8
B079	U1-6B	3/8	x	1/4



Female Flare Connectors				
B092	U4-4	1/4		
B093	U4-6	3/8		
B094	U4-8	1/2		



Flare Plug				
B096	P2-4	1/4		
B098	P2-6	3/8		
B099	P2-8	1/2		
B100	P2-10	5/8		



Pipe Plug (MPT)				
B103	P3-A	1/8		
B104	P3-B	1/4		
B105	P3-C	3/8		
B106	P3-D	1/2		



Fusible Plug				
B108	FP-A	1/8		
B109	FP-B	1/4		
B110	FP-C	3/8		



Flare Fittings

Code Size

Flare Bonnet

B113	B1-4	1/4
B114	B1-5	5/16
B115	B1-6	3/8
B116	B1-8	1/2
B117	B1-10	5/8
B118	B1-12	3/4
B119	B1-14	7/8



Flare Gasket

B123	B2-4	1/4
B124	B2-5	5/16
B125	B2-6	3/8
B126	B2-8	1/2
B127	B2-10	5/8
B128	B2-12	3/4
B129	B2-14	7/8



Equal Flare Tee

B133	T2-4	1/4
B135	T2-6	3/8
B136	T2-8	1/2
B137	T2-10	5/8



Flare Tee, Branch Increasing

B140	TR2-46	1/4	x	3/8
B141	TR2-48	1/4	x	1/2
B142	TR2-68	3/8	x	1/2



Flare Tee, Branch Reducing

B150	TR2-64	3/8	x	1/4
B151	TR2-84	1/2	x	1/4
B152	TR2-86	1/2	x	3/8



Tee, Male Flare x MPT

B160	T1-4A	1/4	x	1/8
B161	T1-4B	1/4	x	1/4



Tee, Male Flare x FPT

B170	T5-4A	1/4	x	1/8
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Tee, Male Flare x Female Flare Branch

B180	5686	1/4
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Flare Adaptors

Flare Adaptors can be used to replace flare fittings. A sleeve is brazed to the tube and the seal is made by a copper gasket. This enables a new gasket to be fitted each time the connection is broken.

Code	Model	Size
B190	FA-2	1/4
B191	FA-3	3/8
B192	FA-4	1/2
B193	FA-5	5/8
B194	FA-23	3/8 - 1/4
B195	FA-34	1/2 - 3/8



Leak Lock Compound

Code	Model	Size
B197	Leak 40	40 ml



Solder Fittings

Code		Size
90°Elbow, Short Radius		
B200	9607	1/4"
B201	9607	3/8
B202	9607	1/2
B203	9607	5/8
B204	9607	3/4
B205	9607	7/8
B206	9607	1-1/8
B207	9607	1-3/8
B208	9607	1-5/8
B209	9607	2-1/8
B210	9607	2-5/8
B211	9607	3-1/8
B212	9607	3-5/8
B213	9607	4-1/8



90°Bend, Long Radius		
B214	9607 LT	1/4"
B215	9607 LT	3/8
B216	9607 LT	1/2
B217	9607 LT	5/8
B218	9607 LT	3/4
B219	9607 LT	7/8
B220	9607 LT	1-1/8
B221	9607 LT	1-3/8
B222	9607 LT	1-5/8
B223	9607 LT	2-1/8
B224	9607 LT	2-5/8
B225	9607 LT	3-1/8
B226	9607 LT	3-5/8
B227	9607 LT	4-1/8



90°Elbow, Fitting x Copper		
B430	9607-2	1/2"
B431	9607-2	5/8
B432	9607-2	3/4
B433	9607-2	7/8
B434	9607-2	1-1/8
B435	9607-2	1-3/8
B436	9607-2	1-5/8
B437	9607-2	2-1/8
B438	9607-2	2-5/8
B439	9607-2	3-1/8
B441	9607-2	4-1/8



90°Bend, Fitting x Copper		
B230	9607-2 LT	1/2"
B231	9607-2 LT	5/8
B232	9607-2 LT	3/4
B233	9607-2 LT	7/8
B234	9607-2 LT	1-1/8
B235	9607-2 LT	1-3/8
B236	9607-2 LT	1-5/8
B237	9607-2 LT	2-1/8
B444	9607-2 LT	2-5/8
B445	9607-2 LT	3-1/8
B446	9607-2 LT	3-5/8
B447	9607-2 LT	4-1/8



Solder Fittings

Code		Size
180°Return Bend		
B240	9638	3/8"
B241	9638	1/2
B242	9638	5/8
B243	9638	3/4
B244	9638	7/8
B245	9638	1-1/8
B246	9638	1-3/8
B247	9638	1-5/8
B248	9638	2-1/8



Oil Trap		
B315	9698	5/8"
B316	9698	3/4
B317	9698	7/8
B318	9698	1-1/8
B319	9698	1-3/8
B320	9698	1-5/8
B321	9698	2-1/8



Equal Tee		
B340	9611	1/4"
B341	9611	3/8
B342	9611	1/2
B343	9611	5/8
B344	9611	3/4
B345	9611	7/8
B346	9611	1-1/8
B347	9611	1-3/8
B348	9611	1-5/8
B349	9611	2-1/8
B350	9611	2-5/8
B351	9611	3-1/8
B352	9611	3-5/8
B353	9611	4-1/8



Coupling		
B355	9600	1/4"
B356	9600	3/8
B357	9600	1/2
B358	9600	5/8
B359	9600	3/4
B360	9600	7/8
B361	9600	1-1/8
B362	9600	1-3/8
B363	9600	1-5/8
B364	9600	2-1/8
B365	9600	2-5/8
B366	9600	3-1/8
B367	9600	3-5/8
B368	9600	4-1/8



Solder Fittings

Code	Size			
Reducer – Fitting to Copper (F x C)				
B255	9600-2	3/8	x	1/4
B256	9600-2	1/2	x	3/8
B257	9600-2	1/2	x	1/4
B258	9600-2	5/8	x	1/2
B259	9600-2	5/8	x	3/8
B260	9600-2	3/4	x	5/8
B261	9600-2	3/4	x	1/2
B262	9600-2	7/8	x	3/4
B263	9600-2	7/8	x	5/8
B264	9600-2	7/8	x	1/2
B265	9600-2	1-1/8	x	7/8
B266	9600-2	1-1/8	x	3/4
B267	9600-2	1-1/8	x	5/8
B268	9600-2	1-1/8	x	1/2
B269	9600-2	1-3/8	x	1-1/8
B270	9600-2	1-3/8	x	7/8
B271	9600-2	1-3/8	x	5/8
B272	9600-2	1-5/8	x	1-3/8
B273	9600-2	1-5/8	x	1-1/8
B274	9600-2	1-5/8	x	7/8
B275	9600-2	1-5/8	x	5/8
B276	9600-2	2-1/8	x	1-5/8
B277	9600-2	2-1/8	x	1-3/8
B278	9600-2	2-1/8	x	1-1/8
B279	9600-2	2-1/8	x	7/8
B280	9600-2	2-5/8	x	2-1/8
B281	9600-2	2-5/8	x	1-5/8
B282	9600-2	3-1/8	x	2-5/8
B283	9600-2	3-1/8	x	2-1/8
B284	9600-2	3-1/8	x	1-5/8
B249	9600-2	3-5/8	x	3-1/8
B250	9600-2	4-1/8	x	3-5/8
B251	9600-2	4-1/8	x	3-1/8
B252	9600-2	4-1/8	x	2-5/8
B253	9600-2	4-1/8	x	2-1/8



Solder Fittings

Code	Size			
Reducer - Copper to Copper (C x C)				
B285	9600	3/8	x	1/4
B286	9600	1/2	x	3/8
B287	9600	1/2	x	1/4
B288	9600	5/8	x	1/2
B289	9600	5/8	x	3/8
B290	9600	3/4	x	5/8
B291	9600	3/4	x	1/2
B292	9600	7/8	x	3/4
B293	9600	7/8	x	5/8
B294	9600	7/8	x	1/2
B295	9600	1-1/8	x	7/8
B296	9600	1-1/8	x	3/4
B297	9600	1-1/8	x	5/8
B298	9600	1-1/8	x	1/2
B299	9600	1-3/8	x	1-1/8
B300	9600	1-3/8	x	7/8
B301	9600	1-5/8	x	1-3/8
B302	9600	1-5/8	x	1-1/8
B303	9600	1-5/8	x	7/8
B304	9600	2-1/8	x	1-5/8
B305	9600	2-5/8	x	2-1/8
B306	9600	2-5/8	x	1-5/8
B307	9600	3-1/8	x	2-5/8
B308	9600	3-1/8	x	2-1/8
B309	9600	3-1/8	x	1-5/8
B310	9600	3-5/8	x	3-1/8
B311	9600	4-1/8	x	3-5/8
B312	9600	4-1/8	x	3-1/8
B313	9600	4-1/8	x	2-5/8
B314	9600	4-1/8	x	2-1/8



Please note that there are many other fittings available – if you do not see the size that you require please contact our sales office.

Solder Fittings

Code

Size

45° Bend

B330	9606	5/8"
B331	9606	3/4
B332	9606	7/8
B333	9606	1-1/8
B334	9606	1-3/8
B335	9606	1-5/8
B336	9606	2-1/8
B450	9606	2-5/8
B451	9606	3-1/8
B452	9606	3-5/8
B453	9606	4-1/8



End Cap

B390	9617	1/2"
B391	9617	5/8
B392	9617	3/4
B393	9617	7/8
B394	9617	1-1/8
B395	9617	1-3/8
B396	9617	1-5/8
B397	9617	2-1/8
B398	9617	2-5/8
B399	9617	3-1/8
B455	9617	4-1/8



Adaptor, ODF x MPTv

B370	9604	5/8	x	1/2"
B371	9604	7/8	x	3/4
B372	9604	1-1/8	x	1
B373	9604	1-3/8	x	1-1/4
B374	9604	1-5/8	x	1-1/2
B375	9604	2-1/8	x	2



Adaptor, ODF x FPT

B380	9603	5/8	x	1/2"
B381	9603	7/8	x	3/4
B382	9603	1-1/8	x	1
B383	9603	1-5/8	x	1-1/2
B384	9603	2-1/8	x	2



Reducing Tees (Last Size Branch)

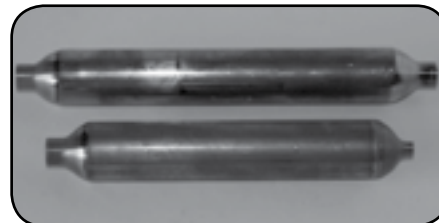
B409	3/8	x	3/8	x	1/4
B410	3/8	x	3/8	x	1/2
B411	1/2	x	1/2	x	3/8
B412	1/2	x	1/2	x	5/8
B413	5/8	x	5/8	x	1/2
B414	5/8	x	5/8	x	7/8
B415	5/8	x	5/8	x	1-1/8
B416	1-1/8	x	1-1/8	x	7/8
B417	7/8	x	7/8	x	5/8
B418	7/8	x	7/8	x	1/2
B419	1-1/8	x	1-1/8	x	5/8
B420	1-3/8	x	1-3/8	x	1-1/8
B421	1-3/8	x	1-3/8	x	7/8
B422	1-5/8	x	1-5/8	x	1-3/8
B423	1-5/8	x	1-5/8	x	1-1/8
B424	2-1/8	x	2-1/8	x	1-1/8



Copper Spun Driers

Suitable for HFC, CFC and HCFC.

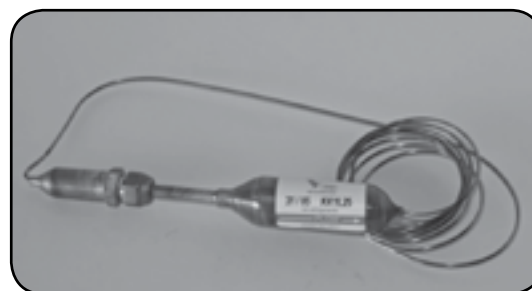
Code	Model	Connections			
C440	MSCD-5-3	3/16"	x	2.5mm	
C441	MSCD-15-3	3/16	x	2.5	
C442	MSCD-15-4	1/4	x	2.5	
C443	MSCD-20	1/4	x	2.5	
C444	MSCD-30	1/4	x	2.5	
C448	MSCD-20S	1/4	x	1/4"	



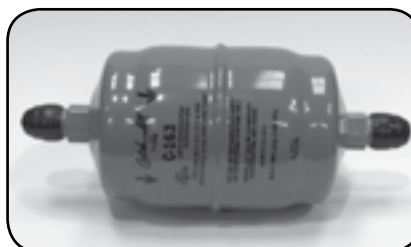
Kap Kit

One piece Drier and Capillary enabling quick and easy replacement.

Code	Model	Application
C450	KK1L-25	LBP 0.15 kW
C451	KK1H-25	HBP 0.15
C452	KK2L-25	LBP 0.37 kW
C453	KK2H-25	HBP 0.37



We stock a wide range of Danfoss driers along with the Sporlan Catch All range of flare driers all available from stock....

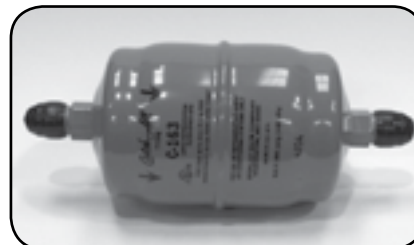


Sporlan Driers

Catch-All Filter Driers remove Moisture, Fine Particles and Acid.



Code	Model	Connections
C460	C 032	1/4 flare
C461	C 052	1/4
C462	C 082	1/4
C465	C 053	3/8
C466	C 083	3/8
C467	C 163	3/8
C468	C 303	3/8
C471	C 084	1/2
C472	C 164	1/2
C473	C 304	1/2
C476	C 165	5/8
C477	C 305	5/8



Two Way Heat Pump Driers

The Catch-All Heat Pump Driers internal construction allows reversible refrigerant flow while providing effective filtration and contaminant retention. External check valves are not required.



Code	Model	Connections
C120	HPC-103F	3/8 flare
C121	HPC-104F	1/2
C126	HPC -103S	3/8 solder
C127	HPC -104S	1/2



Burnout Driers

Eliminator Burnout driers type DAS are used in the suction line to clean up refrigeration and air conditioning systems after a compressor motor burn out. The solid core is composed of 70% activated alumina and 30% molecular sieves. The DAS drier absorbs both moisture and harmful acids thereby protecting the new compressor against premature failure.



Code	Model	Connections
C050	DAS 083VV	3/8 flare
C051	DAS 084VV	1/2
C052	DAS 164VV	1/2
C053	DAS 165VV	5/8
C055	DAS 083sVV	3/8 solder
C056	DAS 084sVV	1/2
C059	DAS 164sVV	1/2
C060	DAS 165sVV	5/8
C063	DAS 305sVV	5/8
C064	DAS 306sVV	3/4
C065	DAS 307sVV	7/8
C069	DAS 417sVV	7/8
C070	DAS 419sVV	1-1/8
C072	DAS 609sVV	1-1/8



Danfoss Driers

Danfoss DCL driers are suitable for use with HFC's, HCFC's and CFC's. The drier has a solid core containing 80% 3A molecular sieves and 20% activated alumina for acid absorption and is therefore suited for service work.

Danfoss

Code	Model	Connections
Flare connections - DCL		
C301	DCL 032	1/4 flare
C302	DCL 052	1/4
C303	DCL 082	1/4
C304	DCL 162	1/4
C306	DCL 053	3/8 flare
C307	DCL 083	3/8
C308	DCL 163	3/8
C309	DCL 303	3/8
C311	DCL 084	1/2 flare
C312	DCL 164	1/2
C313	DCL 304	1/2
C315	DCL 165	5/8 flare
C316	DCL 305	5/8
C318	DCL 306	3/4 flare



Solder connections - DCL		
C320	DCL 032S	1/4 solder
C321	DCL 052S	1/4
C325	DCL 053S	3/8 solder
C326	DCL 083S	3/8
C327	DCL 163S	3/8
C330	DCL 084S	1/2 solder
C331	DCL 164S	1/2
C332	DCL 304S	1/2
C334	DCL 165S	5/8 solder
C335	DCL 305S	5/8
C336	DCL 306S	3/4 solder
C337	DCL 307S	7/8 solder
C338	DCL 607S	7/8



Danfoss

Drier Shells

Drier Shells can be used in either the Liquid or Suction Line.
For capacities please see overleaf.

Danfoss

Drier shells are supplied **WITHOUT** Cores.
Please order separately.

Code	Model	No of Cores
5/8" Connections		
C600	DCR 0485	1 x 48 Core
7/8" Connections		
C602	DCR 0487	1 x 48 Core
C603	DCR 0967	2 x 48
1-1/8" Connections		
C605	DCR 0489	1 x 48 Core
C606	DCR 0969	2 x 48
1-3/8" Connections		
C609	DCR 04811	1 x 48 Core
C610	DCR 09611	2 x 48
C611	DCR 14411	3 x 48
1-5/8" Connections		
C615	DCR 04813	1 x 48 Core
C616	DCR 09613	2 x 48
C618	DCR 19213	4 x 48
2-1/8" Connections		
C621	DCR 04817	1 x 48 Core
C622	DCR 09617	2 x 48
C623	DCR 14417	3 x 48
C624	DCR 19217	4 x 48



Drier Cores

- 48-DN Solid core consisting of 3A molecular sieves compatible with R22, R134a R404A and R507. Also compatible with most blends.
Activated aluminium oxide for acid absorption.
- 48-DU Solid core with 100% 3A molecular sieves compatible with R134a, R404A and R407C.
- 48-DA Solid core with high acid absorption and standard water absorption.
Compatible with R22, R134a, R404A and R507.
- 48-F Strainer. For use in suction or liquid lines.
Compatible with all fluorinated refrigerants.

Danfoss

Code	Model	Style
Danfoss		
C630	48-DN	High Moisture Capacity
C631	48-DU	Extra High Moisture Capacity
C632	48-DA	Decontamination
C633	48-F	Strainer

Alternative		
C640	48-H	High Moisture Capacity
C642	48-SC	Decontamination
C646	100-H	High Moisture Capacity



Drier Shell Capacities

These capacities are based on normal refrigeration systems, for systems with long pipe runs or systems in adverse conditions use a larger drier



Recommended Liquid Line Capacity in kW given in accordance with ARI 710-86
evaporating temperature = -15°C condensing temperature = +30°C and pressure drop
across the filter drier = 0.07 bar.

Model	Core Type 48DN				Core Type 48-DU		
	R22	R134a	R404A R507	R407C R410	R134a	R404A R507	R407C R410
DCR 0485	88	79	57	88	79	57	88
DCR 0487	153	139	99	153	139	99	153
DCR 0967	155	140	100	155	140	100	155
DCR 0489	206	186	133	206	186	133	206
DCR 0969	240	217	155	240	217	155	240
DCR 04811	259	227	162	259	227	162	259
DCR 09611	326	295	211	326	295	211	326
DCR 14411	394	356	255	394	356	255	394
DCR 04813	259	227	162	259	277	162	259
DCR 09613	396	358	256	396	358	256	396
DCR 19213	509	460	329	509	460	329	509
DCR 04817	259	227	162	259	227	162	259
DCR 09617	396	358	256	396	358	256	396
DCR 14417	394	356	255	394	356	255	394
DCR 19217	509	460	329	509	460	329	509

Suction Line Capacity in kW given in accordance with ARI 730-86 evaporating temperature = +4.4°C,
condensing temperature = +32.2°C and pressure drop across the filter drier = 0.21 bar

Model	R22, R407C, R410A		R134a, R507		R404A		
	-20°C	+4.4°C	-20°C	+4.4°C	-40°C	-20°C	+4.4°C
DCR 0485	8.9	21.0	5.4	13.0	2.4	7.1	17.5
DCR 0487	16.1	37.8	9.9	23.4	4.5	12.9	31.2
DCR 0967	16.2	38.1	9.9	23.6	4.5	12.9	31.4
DCR 0489	21.6	50.7	13.3	31.5	6.0	17.2	41.8
DCR 0969	24.6	58.3	15.0	35.9	6.8	19.7	48.1
DCR 04811	27.3	63.3	16.8	39.5	7.7	21.8	51.9
DCR 09611	33.4	79.3	20.4	48.9	9.3	26.8	65.4
DCR 14411	38.1	92.2	23.0	56.2	10.3	30.7	76.6
DCR 04813	27.3	63.3	16.8	39.5	7.7	21.8	51.9
DCR 09613	39.9	95.2	24.3	58.5	11.0	32.0	78.7
DCR 19213	51.1	122.1	31.1	75.0	14.1	41.1	101.0
DCR 04817	27.3	63.3	16.8	39.5	7.7	21.8	51.9
DCR 09617	39.9	95.2	24.3	58.5	11.0	32.0	78.7
DCR 14417	38.1	92.2	23.0	56.2	10.3	30.7	76.6
DCR 19217	51.1	122.1	31.1	75.0	14.1	41.1	101.0



Danfoss Sight Glasses

SGN sight glasses are fitted with an indicator, which changes colour to show the moisture content in the refrigerant. The sight glass will also indicate a lack of sub cooling or a shortage of refrigerant in the system.



Code	Model	Connections
C350	SGN 6	1/4 flare
C351	SGN 6MF	1/4 m x f
C352	SGN 6S	1/4 solder
C353	SGN10	3/8 flare
C354	SGN10MF	3/8 m x f
C355	SGN10S	3/8 solder
C356	SGN12	1/2 flare
C357	SGN12MF	1/2 m x f
C358	SGN12S	1/2 solder
C359	SGN16	5/8 flare
C360	SGN16MF	5/8 m x f
C361	SGN16S	5/8 solder
C362	SGN19	3/4 flare
C363	SGN19MF	3/4 m x f
C364	SGN19S	3/4 solder
C365	SGN22S	7/8 solder



Sporlan Sight Glasses

SA sight glasses are fitted with an indicator, which changes colour to show the moisture content in the refrigerant. The See-All indicator may turn brown if the system is circulating an excess amount of oil. The sight glass can remain in the system as the flow of Refrigerant will return the See-All to normal when the oil returns to the crankcase.



Code	Model	Connections
C214	SA-17S	7/8 Solder
C215	SA-19S	1-1/8 Solder
C216	SA-211	1-3/8 Solder
C217	SA-213	1-5/8 Solder
C218	SA-217	2-1/8 Solder



Hand Wheel Valves

Code	Model	Connections
D005	HFV2-4	1/4 flare, 2 Way
D006	HVF2-6	3/8
D007	HVF2-8	1/2
D008	HVF2-10	5/8
D009	HVF2-12	3/4
D015	HVS2-4	1/4 solder, 2 Way
D016	HVS2-6	3/8
D017	HVS2-8	1/2
D018	HVS2-10	5/8
D019	HVS2-12	3/4
D025	HVF3-4	1/4 flare, 3 Way
D026	HVF3-6	3/8
D027	HVF3-8	1/2



Capped Valves

Code	Model	Connections
D030	CVF2-4	1/4 flare, 2 Way
D031	CVF2-6	3/8
D032	CVF2-8	1/2
D033	CVF2-10	5/8
D034	CVF2-12	3/4
D040	CVS2-4	1/4 solder, 2 Way
D041	CVS2-6	3/8
D042	CVS2-8	1/2
D043	CVS2-10	5/8
D044	CVS2-12	3/4
D045	ILV-2	7/8 solder, 2 Way
D046	ILV-2	1-1/8
D047	ILV-2	1-3/8
D048	ILV-2	1-5/8
D049	ILV-2	2-1/8



Ball Valves

Code	Model	Connections
D061	GBC - 6S	1/4 solder
D062	GBC - 10S	3/8
D063	GBC - 12S	1/2
D064	GBC - 16S	5/8
D065	GBC - 18S	3/4
D066	GBC - 22S	7/8
D067	GBC - 28S	1-1/8
D068	GBC - 35S	1-3/8
D069	GBC - 42S	1-5/8
D070	GBC - 54S	2-1/8
D071	GBC - 67S	2-5/8
D072	GBC - 79S	3-1/8



Danfoss Check Valves

Danfoss non-return valves can be used in liquid, suction or hot gas lines in refrigeration and air conditioning systems. The NRVH models are fitted with a stronger spring for use in discharge lines from compressors connected in parallel. NRVA models are suitable for ammonia and fluorinated refrigerants.



Code	Model	Connections	Danfoss No
Straight way			
D150	NRV 6	1/4 flare	020-1040
D151	NRV 10	3/8	020-1041
D152	NRV 12	1/2	020-1042
D153	NRV 16	5/8	020-1043
D154	NRV 6s	1/4 solder	020-1010
D155	NRV 10s	3/8	020-1011
D156	NRV 12s	1/2	020-1012
D157	NRV 16s	5/8	020-1018
D158	NRV 19s	3/4	020-1019
D163	NRVH 22s	7/8 solder	020-1032
D164	NRVH 28s	1-1/8	020-1029
D165	NRVH 35s	1-3/8	020-1034
Straight way – flanged			
D170	NRVA 15	1/2 weld flange	020-2000
D171	NRVA 20	3/4	020-2001
D172	NRVA 25	1	020-2002
D173	NRVA 32	1-1/4	020-2003
D174	NRVA 40	1-1/2	020-2004
D175	NRVA 50	2	020-2005
D176	NRVA 65	2-1/2	020-2006



Henry Check Valves

Henry check valves come in two styles, either conventional ODF sockets or with copper extensions.

Code	Model	Connections
Straight way		
D130	NRV-14	7/8 solder
D131	NRV-18	1-1/8
D132	NRV-22	1-3/8
D133	NRV-26	1-5/8
D135	NRV-14E	7/8 extended
D136	NRV-18E	1-1/8
D137	NRV-22E	1-3/8
D138	NRV-26E	1-5/8



HENRY
TECHNOLOGIES

AC & R Vertical Suction Accumulators

Compressors are designed to compress Vapour not liquid. The purpose of the accumulator is to hold excess liquid and return it to the compressor as a vapour that is safe for the compressor to handle.

Code	Model	Connections	Dimensions mm
D600	S-7044	1/2	264 H x 102 Dia.
D601	S-7045	5/8	264 H x 102 Dia.
D602	S-7046	3/4	264 H x 102 Dia.
D603	S-7057CE	7/8	330 H x 127 Dia.
D604	S-7061CE	1-1/8	381 H x 152 Dia.
D605	S-7063CE	1-3/8	630 H x 152 Dia.
D606	S-7065CE	1-5/8	630 H x 152 Dia.
D607	S-7721CE	2-1/8	588 H x 219 Dia.
D608	S-7725CE	2-5/8	578 H x 273 Dia.



Helical Oil Separators

The AC & R Helical Oil Separator features a centrifugal flow path achieving approximately 99 percent efficiency of oil separation with a low pressure drop. Oil separators should be selected on capacity not connection size. Oil Return = 3/8" flare.

Code	Model	Connections
D380	S-5180	1/4"
D381	S-5181	3/8
D382	S-5182	1/2
D383	S-5185	5/8
D384	S-5187	7/8
D385	S-5188	1-1/8
D386	S-5190	1-3/8
D387	S-5192	1-5/8

Oil Separator Heater

D388 S-9111 220 volt 4" dia.

Capacities:

Model	R 134a		R22		R404	
	-40°C	+5°C	-40°C	+5°C	-40°C	+5°C
S-5180	1.76	2.64	2.64	3.52	2.64	3.52
S-5181	2.64	3.52	3.52	5.27	3.52	5.27
S-5182	3.52	5.27	5.27	7.03	5.27	7.03
S-5185	10.55	14.06	15.82	19.34	14.06	19.34
S-5187	15.82	19.34	24.61	28.13	22.85	29.89
S-5188	21.09	26.37	31.64	36.92	29.88	38.67
S-5190	28.13	35.16	45.71	49.22	42.19	52.74
S-5192	38.68	45.71	56.25	63.29	52.74	66.80

The above capacities are given in kilowatts at the indicated temperature.



Vertical Liquid Receivers

Code	Model	Volume Litres	Inlet Solder	Outlet Rot. x FI
D500	DGD-02	2	6 mm	3/4 x 1/4
D501	DGD-04	4	10 mm	1" x 3/8
D502	DGD-06	6	12 mm	1" x 1/2
D503	DGD-09	9	12 mm	1" x 1/2
D504	DGD-10	10	16 mm	1" x 5/8
D505	DGD-14 *	14	16 mm	1" x 5/8
D506	DGD-25 *	25	22 mm	1" x 3/4
D507	DGD-35 *	35	22 mm	1-1/4 x 7/8
D508	DGD-50 *	50	28 mm	1-1/4 x 7/8

All of the above models come c/w Rotalock Valves.



Horizontal Liquid Receivers

Code	Model	Volume Litres	Inlet Solder	Outlet Rot. x FI
D530	YGD-15	15	16 mm	1" x 5/8
D531	YGD-22 *	22	19 mm	1" x 3/4
D532	YGD-40 *	40	28 mm	1-1/4 x 7/8
D533	YGD-50 *	50	28 mm	1-1/4 x 7/8
D534	YGD-60 *	60	28 mm	1-1/4 x 7/8

All of the above models come c/w Rotalock Valves



Notes relating to both Vertical and Horizontal models:

* Supplied with 1/2 NPTF fitting for pressure relief valve

Rotalock Valves

Code	Model	To Suit	Inlet	Rotalock	Solder
D512	RVA-1/4	DGD-02	6 mm	x 3/4	x 1/4
D513	RVA-3/8	DGD-04	10 mm	x 1"	x 3/8
D514	RVA-1/2	DGD-06	12 mm	x 1"	x 1/2
		DGD-09			
D515	RVA-5/8	DGD-10	16 mm	x 1"	x 5/8
		DGD-14			
		YGD-15			
D517	RVA-7/8	DGD-35	22 mm	x	x 7/8
D519	RVA-3/4	YGD-22	19 mm	x 1"	x 3/4

PLEASE NOTE: All of the above items are purchased to order only and are subject to import carriage charges at cost . This will be quoted at time of order.



Pressure Relief Valves

Code	Model	Inlet	Outlet
D450	5230A-CE	1/4" MPT Inlet	1/2" Flare Outlet
D451	5231A-CE	3/8" MPT	1/2" Flare
D452	5232A-CE	1/2" MPT	3/4" Flare

Catalogue numbers indicate size of Pressure Relief Valve only.
Please specify pressure setting when ordering.
Standard settings are:

W	20.7 Bar	300 psi
X	24.1 Bar	350 psi
Y	27.6 Bar	400 psi
Z	31.0 Bar	450 psi



Other settings also available - please ask for details.

Dual Shut Off Valve

Three way dual shut off valve to enable removal of pressure relief valve for testing.

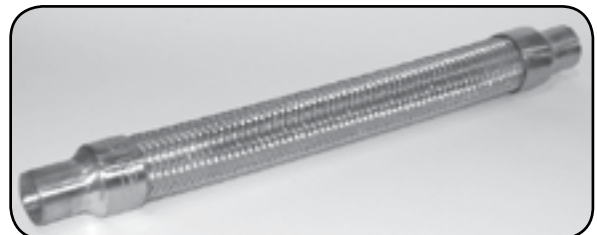
Model 923 has 3/8" FPT inlet and two 3/8" FPT outlets.
Model 925 has 1/2" FPT inlet and two 1/2" FPT outlets.

Code	Model
D459	923-3/8 FPT Three Way Valve
D460	925-1/2 FPT Three Way Valve



Vibration Eliminators

Code	Model	Size
D200	VAF-1	1/4"
D201	VAF-3	3/8
D202	VAF-4	1/2
D203	VAF-5	5/8
D204	VAF-6	3/4
D205	VAF-8	7/8
D206	VAF-9	1-1/8
D207	VAF-10	1-3/8
D208	VAF-11	1-5/8
D209	VAF-82	2-1/8
D210	VAF-83	2-5/8
D211	VAF-84	3-1/8
D212	VAF-85	3-5/8
D213	VAF-86	4-1/8



Flexible Hoses

Cut to length Flexible Hoses.

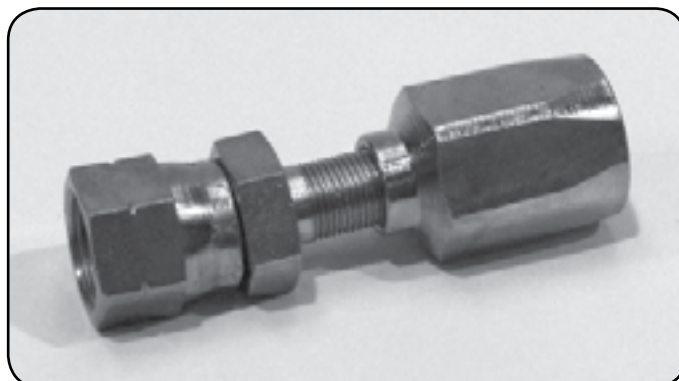
Synthetic rubber inner tube covered with a nylon layer and reinforced with two polyester spirals.

Maximum working pressure 350 p.s.i. Minimum bursting pressure 1750 p.s.i.

Suitable for HFC, CFC and HCFC

Code	Part Number	Size	
Hose per metre			
D260	3056-04	1/4"	nominal size
D261	3056-06	3/8"	
D262	3055-08	1/2"	
D263	3055-10	5/8"	
Straight Union			
D265	5704-04-04	1/4"	Union – female flare
D267	5706-06-06	3/8"	
D269	5704-08-08	1/2"	
D271	5704-10-10	5/8"	
90° Degree Elbow			
D273	5709-04-04	1/4"	Elbow – female flare
D274	5710-06-06	3/8"	
D275	5709-08-08	1/2"	
D276	5709-10-10	5/8"	
Straight Union – ‘O’ Ring			
D252	51704-6-6		Union 6mm ‘O’ Ring
D253	51704-8-8		Union 8mm
D254	51704-10-10		Union 10mm
90° Degree Elbow – ‘O’ Ring			
D256	51706-6-6		Elbow 6 mm ‘O’ Ring
D257	51706-8-8		Elbow 8 mm
D258	51706-10-10		Elbow 10 mm

* End fittings can be fitted using ordinary hand tools



Danfoss Thermostat Kits

Code	Type	To Suit
E005	NO-1 Kit	Refrigerator
E006	NO-2	Refrigerator Push/Defrost
E007	NO-3	Fridge Freezer/Larder Fridge
E008	NO-4	Absorption Refrigerator
E009	NO-5	Freezer
E010	NO-6	Freezer M.O.R. signal
E011	NO-7	Freezer B.O.R. signal
E012	NO-8	Bottle and Liquid Cooler



Ranco Varifix Kits

Code	Type	To Suit
E020	VC-1	Refrigerator
E021	VA-2	Absorption Refrigerator
E022	VF-3	Freezer
E023	VP-4	Refrigerator Push/Defrost
E024	VS-5	Freezer M.O.R. signal
E025	VR-6	Freezer B.O.R. signal
E026	VB-7	Bottle Cooler
E027	VW-8	Window Air Conditioning
E028	VT-9	Fridge Freezer/Larder Fridge
E029	VX-0	Fridge Freezer/Larder Fridge (Similar to VT-9 but operates at a higher temperature)
E030	VT-93	Fridge Freezer/Larder Fridge (Similar to VT-9 with 3.0 metre capillary)
E031	VTD-9	Fridge Freezer fitted with Solenoid Valve or Capillary Heater Defrost



Discounts are available for full carton quantities – please ask!

Ranco Pressure Switches

016 models are single pressure switches with changeover contacts.

LP Range - bar -0.3 to 7.0 Differential - Auto reset 0.6 to 4.0 – Manual 0.6 fixed

HP Range - bar 7 to 30 Differential - Auto reset 2.5 to 8.0 – Manual 3.2 fixed

017 models are dual switches fitted with an extra contact to give an independent high or low-pressure trip signal.

Code	Model	Style	Reset
E060	016-6703	Low Pressure	Auto
E061	016-6705	Low Pressure	Manual
E062	016-6750	High Pressure	Auto
E063	016-6751	High Pressure	Manual
E064	017-4701	Dual LP/HP	Auto/Auto
E065	017-4703	Dual LP/HP	Man/Man
E067	017-4705	Dual LP/HP	Auto/Man



Danfoss Pressure Switches

KP-1 models are single low-pressure switches with changeover contacts.

Range -0.2 to 7.5 bar. Differential - Auto reset 0.7 to 4.0 – Manual 0.7 fixed

KP-5 models are single high-pressure switches with changeover contacts.

Range 8 to 32 bar. Differential - Auto reset 1.8 to 6.0 – Manual 3.0 fixed

KP-15 models are dual switches fitted with an extra contact to give an independent low-pressure trip signal.

Code	Model	Style	Reset	Danfoss No
E800	KP-1	Low Pressure	Auto	060-1101
E801	KP-1	Low Pressure	Manual	060-1103
E804	KP-5	High Pressure	Auto	060-1171
E805	KP-5	High Pressure	Manual	060-1173
E807	KP-15	Dual LP/HP	Auto/Auto	060-1241
E808	KP-15	Dual LP/HP	Auto or Manual	060-1154



Ranco Thermostats

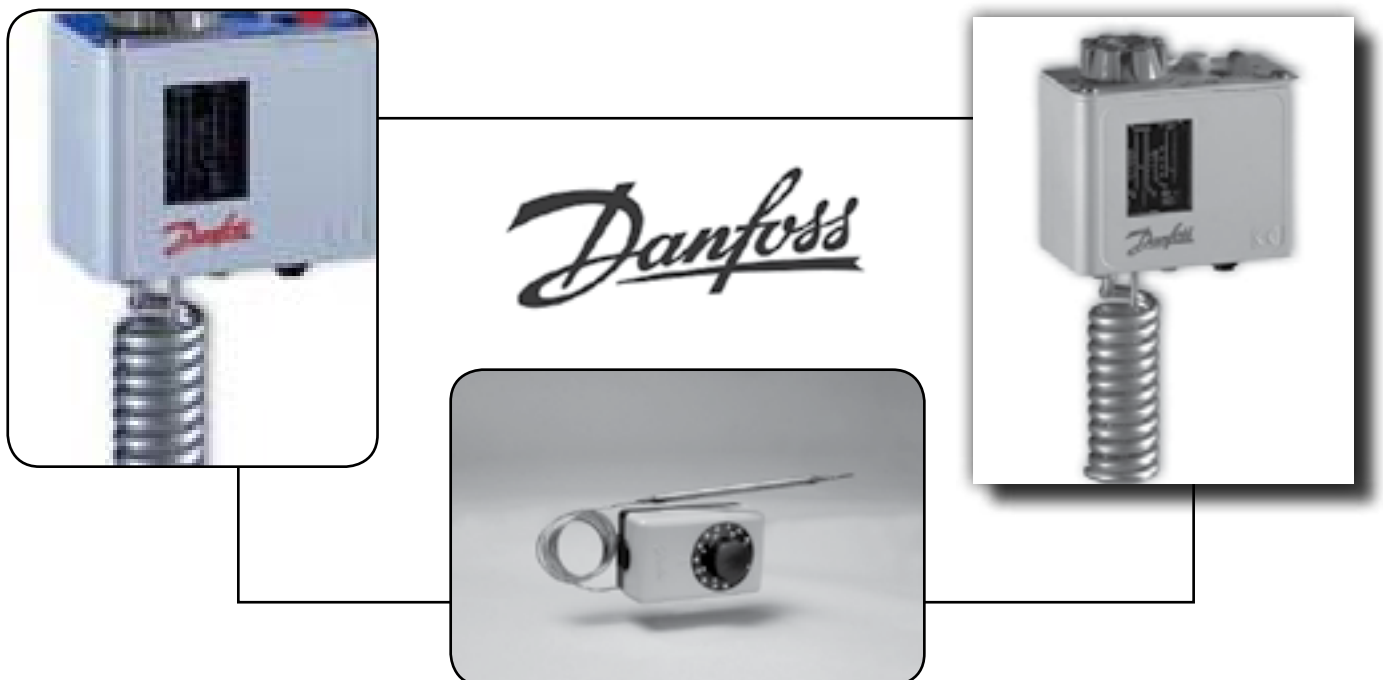
Code	Model	Sensor	Range °C	Differential
E070	016-6901	Room	- 18 to + 13	1.5 K
E071	016-6902	Room	- 5 to + 25	1.5 K
E072	016-6903	Room	+ 10 to + 40	1.5 K
E073	016-6920	Straight	- 48 to - 18	1.7 to 12 K
E074	016-6921	Straight	- 35 to - 7	1.7 to 12 K
E075	016-6922	Straight	- 18 to + 13	1.7 to 12 K
E076	016-6924	Straight	- 5 to + 25	1.7 to 12 K
E077	016-6950	Coiled	- 35 to - 7	1.7 to 12 K
E078	016-6951	Coiled	- 18 to + 13	1.7 to 12 K
E079	016-6954	Coiled	- 5 to + 25	1.7 to 12 K
E080	016-6980	X Ambient	- 18 to + 13	1.7 to 12 K
E081	016-6981	X Ambient	- 5 to + 25	1.7 to 12 K
E082	016-6983	X Ambient	+ 10 to + 40	1.7 to 12 K
E083	016-6930	X Ambient	- 32 to + 34	3 to 22 K



Danfoss Thermostats

Code	Model	Sensor	Range °C	Differential *	Danfoss No
E830	UT-72	Bulb -1.5M	-30 to +30	2.3K	060H1101
E831	UT-73	Bulb -1.5M	0 to +40	2.3K	060H1102
E835	KP-61	Straight-2M	-30 to +15	5.5/23-1.5/7K	060L1100
E836	KP-61	Straight-5M	-30 to +15	5.5/23-1.5/7K	060L1101
E837	KP-61	Coil-2M	-30 to +15	4.5/23-1.2/7K	060L1102
E838	KP-62	Room	-30 to +15	1.5K	060L1106

* The Differentials quoted for the KP-61 range have two values:
The first is at the lowest temperature setting and the other at the highest temperature setting.



Thermostat and Pressure Switch Accessories

Code Type

Phial Guard

E140 V169 Guard



Brackets

E141 31696-1 Angle Bracket

E142 48129-3 Flat Bracket



Pressure Coupler

E143 PCP.1000SV 1 metre
c/w Core Depressor



Everflex Hose

Stainless Braid reinforced flexible lines ideal for replacing capillaries where vibration may cause fractures i.e. pressure or oil differential switches. Constructed out of 304 Stainless Steel Braid with a smooth inner lining of Teflon. Female 1/4" flare connections. One end straight and the other end 90 degree elbow. Temperature range -54 Deg.C to +232 Deg.C.



Code	Model	Overall Length
E180	H70AB-6	152 mm
E181	H70AB-13	330
E182	H70AB-19	483
E183	H70AB-25	635
E184	H70AB-31	787
E185	H70AB-37	940
E186	H70AB-49	1245
E187	H70AB-60	1524



Thermoplastic Hose

Triple wall thermoplastic hose to provide an alternative to copper tube, reducing the risk of fracture whilst being simple and easy to assemble. Hoses are suitable for HCFC and HFC's as well as the old CFC's. Rated at 500 bar, -20 to +110 Degrees C. Supplied in 50M coils, 6 mm o.d. x 2 mm i.d.

Code Description

E200 50M coil of 0780 Triple Wall Hose

E208 1/4" Female flare Crimp Tee

E209 1/4" Female flare Crimp 90° Elbow

E210 1/4" Female flare Crimp Union

E211 Schraeder Depressor for above

E215 Crimping Tool



Aspen Fan Speed Controls

The Fan Speed Controller is designed to control the head pressure during ambient temperatures of 21°C and lower, whilst in cooling mode.

The aim is to achieve a condenser head pressure of between 230 psig/245 psig (these figures apply to R22 refrigerant).

The heat pump model has a switch to facilitate either energised or de-energised 4 way valves in heating, between 24V and 240V signals.



Specification:

There are two models available: One for Cooling Only
One for Heating and Cooling

Condenser temperature coil sensor

Max output: 3 Amp

Push on connectors

Minimum speed adjustment: 230V 50/60 Hz

Power Consumption Internal: 8 W

Heat Pump Model: Reversing valve input 24 to 240V A.C.

opto isolated Setpoint: 30 to 60 °C



Code	Model
E526	ASPEN-C
E527	ASPEN-H/C

Alco Fan Speed Control

The FS controls the speed of fan motors according to pressure changes. Make sure the motor is approved by the motor or unit manufacturer for variable speed by means of phase cutting (TRIAC).

Suitable for R22, R134a, R407C and R404A.



Specification:

Supply voltage: 230 VAC (+15%/-20%) 50 or 60 Hz

Nominal current: 0.2 to 4 amps

Maximum refrigerant temperature: +70°C

Permissible ambient temperature: -20°C to +55°C

Protection to IP65

Connection: 1/4" female flare to suit access fitting



Code	Model
E525	FSF-42-S

Danfoss Expansion Valves

T*2 Range – Order valve and orifice separately
Range N -40°C to +10°C Without MOP



Code	Model	Connections	Danfoss No
Internally Equalised			
F500	TX2 R22	3/8 x 1/2 flare	068Z3206
F502	TN2 R134a		068Z3346
F504	TS2 R404A		068Z3400
F505	TZ2 R407C		068Z3496
F525	TX2 R22	S 3/8 fl x 1/2 solder	068Z3281
F526	TN2 R134a	S	068Z3383
F527	TS2 R404A	S	068Z3414
F528	TZ2 R407C	S	068Z3502

Externally Equalised

F516	TEX2 R22	3/8 x 1/2 flare	068Z3209
F518	TEN2 R134a		068Z3348
F520	TES2 R404A		068Z3403
F521	TEZ2 R407C		068Z3501
F529	TEX2 R22	S 3/8 fl x 1/2 solder	068Z3284
F530	TEN2 R134a	S	068Z3385
F531	TES2 R404A	S	068Z3415
F532	TEZ2 R407C	S	068Z3503

Orifice to Suit T*2 and TE*2 Valves

F539	OX Orifice	T2 & TE2 Only	068-2002
F540	00		068-2003
F541	01		068-2010
F542	02		068-2015
F543	03		068-2006
F544	04		068-2007
F545	05		068-2008
F546	06		068-2009

Orifice to Suit Solder Valves Only T*2 and TE*2

F507	00	068-2090
F508	01	068-2091
F509	02	068-2092
F510	03	068-2093
F511	04	068-2094
F512	05	068-2095
F513	06	068-2096




Danfoss Expansion Valves

TE*5 TE*12 and TE*20 Range

Order element, orifice and base separately.

Range N -40°C to +10°C Without MOP



Code	Model	Connections	Danfoss No
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TE*5 Thermostatic Element

F550	TEX5 R22	-	067B3250
F551	TEN5 R134a	-	067B3297
F552	TES5 R404A	-	067B3342
F553	TEZ5 R407C	-	067B3278

Orifice to Suit TE*5 Valves

F556	No 1 Orifice	-	067B2089
F557	No 2	-	067B2090
F558	No 3	-	067B2091
F559	No 4	-	067B2092

Bases for TE*5 Valves

F560	Angle Flare	1/2 x 5/8	067B4013
F561	Angle Solder	1/2 x 5/8	067B4009
F562	Angle Solder	1/2 x 7/8	067B4010
F563	Angle Solder	5/8 x 7/8	067B4011
F564	Straight Solder	1/2 x 5/8	067B4007
F565	Straight Solder	1/2 x 7/8	067B4008

TE*12 Thermostatic Element

F570	TEX12 R22	-	067B3210
F571	TEN12 R134a	-	067B3232
F572	TES12 R404A	-	067B3347
F573	TEZ12 R407C	-	067B3366

Orifice to Suit TE*12 Valves

F576	No 1 Orifice	-	067B2005
F577	No 2	-	067B2006
F578	No 3	-	067B2007
F579	No 4	-	067B2008

Bases for TE*12 Valves

F580	Angle Solder	5/8 x 7/8	068B4022
F581	Angle Solder	7/8 x 1-1/8	068B4023
F582	Straight Solder	5/8 x 7/8	068B4020
F583	Straight Solder	7/8 x 1-1/8	068B4021

TE*20 Thermostatic Element

F585	TEX20 R22	-	067B3274
F586	TEN20 R134a	-	067B3292
F587	TES20 R404A	-	067B3352
F588	TEZ20 R407C	-	067B3371

Orifice to Suit TE*20 Valves

F590	No 1 Orifice	-	067B2175
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Bases for TE*20 Valves

F581	Angle Solder	7/8 x 1-1/8	068B4023
F583	Straight Solder	7/8 x 1-1/8	068B4021




Danfoss Expansion Valve Selection Chart

This table is for guidance only and the capacities have been selected at a set point.
The capacity quoted is for an 8 bar pressure drop across the valve.
For other pressure drops and conditions please call our sales office for assistance.



Capacity in kW for Range N: -40° to +10°C.

Valve Type	Orifice	R134a				R404A					
		Evaporating Temperature °C				Evaporating Temperature °C					
		10	0	-10	-20	10	0	-10	-20	-30	-40
T* 2/TE* 2	0X	0.50	0.47	0.44	0.41	0.42	0.42	0.42	0.40	0.37	0.33
T* 2/TE* 2	0	0.97	0.89	0.81	0.72	0.94	0.90	0.84	0.77	0.37	0.33
T* 2/TE* 2	1	2.15	1.80	1.46	1.17	2.42	2.13	1.81	1.50	1.21	0.96
T* 2/TE* 2	2	3.14	2.58	2.06	1.62	3.61	3.13	2.62	2.14	1.69	1.32
T* 2/TE* 2	3	5.61	4.61	3.69	2.90	6.43	5.59	4.69	3.83	3.04	2.36
T* 2/TE* 2	4	8.32	6.80	5.42	4.25	9.66	8.33	6.95	5.64	4.47	3.47
T* 2/TE* 2	5	10.8	8.62	6.88	5.40	12.16	10.52	8.81	7.17	5.68	4.41
T* 2/TE* 2	6	12.8	10.5	8.40	6.60	14.86	12.85	10.76	8.75	6.94	5.39
TE* 5	1	15.6	13.0	10.3	7.90	15.1	14.5	12.0	9.60	7.30	5.50
TE* 5	2	22.9	19.4	15.5	12.0	20.5	19.6	16.6	13.3	10.3	7.70
TE* 5	3	32.6	28.5	22.8	17.8	29.1	28.8	24.5	19.8	15.4	11.6
TE* 5	4	46.7	40.8	32.7	25.4	41.7	41.4	35.0	28.4	22.1	16.6
TE* 12	1	20.1	17.3	14.3	11.4	18.7	16.31	14.1	11.7	9.30	7.20
TE* 12	2	32.7	28.1	23.3	18.7	30.3	26.4	23.0	19.1	15.3	11.8
TE* 12	3	47.9	41.1	34.0	27.3	44.5	38.7	33.6	28.0	22.4	17.4
TE* 12	4	63.7	54.9	45.5	36.6	59.2	51.7	45.1	37.6	30.3	23.8
TE* 20	1	78.8	67.8	56.2	45.2	73.0	64.0	56.0	47.0	37.0	29.0
TE* 55	1	175.9	150.1	123.1	97.8	164	142	122	101	80.0	61.0
TE* 55	2	264	227.4	188.1	150.6	245	214	186	155	123	95.0

Valve Type	Orifice	R407C				R22					
		Evaporating Temperature °C				Evaporating Temperature °C					
		10	0	-10	-20	10	0	-10	-20	-30	-40
T* 2/TE* 2	0X	0.61	0.60	0.57	0.54	0.60	0.59	0.57	0.54	0.49	0.45
T* 2/TE* 2	0	1.30	1.30	1.20	1.10	1.30	1.30	1.20	1.10	0.96	0.86
T* 2/TE* 2	1	3.40	3.00	2.50	2.00	3.40	3.00	2.50	2.00	1.70	1.40
T* 2/TE* 2	2	5.20	4.30	3.60	2.90	5.10	4.30	3.60	2.90	2.70	1.90
T* 2/TE* 2	3	9.20	7.90	6.40	5.20	9.10	7.80	6.40	5.20	4.20	3.40
T* 2/TE* 2	4	13.9	11.6	9.50	7.70	13.8	11.5	9.50	7.70	6.20	4.90
T* 2/TE* 2	5	17.4	14.7	12.0	9.80	17.2	14.6	12.0	9.80	7.80	6.30
T* 2/TE* 2	6	21.2	18.0	14.7	11.9	21.0	17.8	14.7	11.9	9.60	7.70
TE* 5	1	20.7	21.0	17.7	14.1	20.5	20.8	17.7	14.1	11.1	8.50
TE* 5	2	28.4	28.6	24.3	19.6	28.1	28.3	24.3	19.6	15.4	12.0
TE* 5	3	41.0	41.0	35.6	28.7	40.6	40.6	35.6	28.7	22.7	17.7
TE* 5	4	58.4	58.6	51.0	41.1	57.8	58.0	51.0	41.1	32.5	25.3
TE* 12	1	28.9	27.1	23.4	19.6	28.6	26.8	23.4	19.6	16.0	12.8
TE* 12	2	46.6	43.9	37.9	32.0	46.1	43.5	37.9	32.0	26.2	21.0
TE* 12	3	67.9	64.5	55.6	46.7	67.2	63.9	55.6	46.7	38.1	30.6
TE* 12	4	89.0	85.9	74.0	62.3	88.1	85.0	74.0	62.3	51.0	41.1
TE* 20	1	119	108	93.6	78.8	118	107	93.6	78.8	64.5	51.8
TE* 55	1	266	239	205	171	263	237	205	171	139	110
TE* 55	2	395	359	309	260	391	355	309	260	212	170

Danfoss Solenoid Valves

Solenoid Valves are supplied **WITHOUT** Coils.
Please order separately

EVR solenoids are suitable for HFC, CFC and HCFC.
Temperature range for the medium is -40°C to +105°C
The valves listed below are the "normally closed" type.
"Normally open" valves are also available to order.

Where there is a choice of body size with the same connections please check the duty requirements to ensure correct selection.

Code	Model	Connections	Danfoss No
F600	EVR-3	1/4 flare	032F1205
F599	EVR-3	3/8	032F1203
F601	EVR-6	3/8	032F8072
F604	EVR-6	1/2	032F1235
F602	EVR-10	1/2	032F1215
F605	EVR-10	5/8	032F1238
F603	EVR-15	5/8	032F1221
F606	EVR-3S	1/4 solder	032F1206
F598	EVR-3S	3/8	032F1204
F607	EVR-6S	3/8	032F1212
F608	EVR-6S	1/2	032F1209
F609	EVR-10S	1/2	032F1217
F610	EVR-10S	5/8	032F1214
F611	EVR-15S	5/8	032F1228
F612	EVR-20S	7/8	032F1240
F613	EVR-20S	1-1/8	032F1244
F614	EVR-25S	1-1/8	032F2201
F615	EVR-32S	1-3/8	032F2208
F616	EVR-32S	1-5/8	042H1104
F617	EVR-40S	2-1/8	042H1112

Coil with Cable

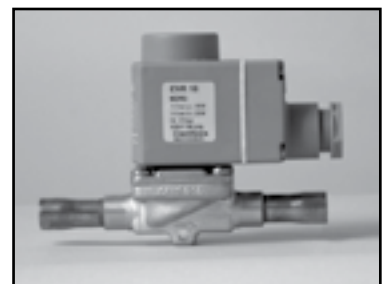
F618	EV-240-Cable	240 volt	50Hz	018F6252
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Coil with Terminal Box

F619	EV-24-TB	24 volt	50Hz	018F6707
F620	EV-110-TB	110 volt	50Hz	018F6730
F621	EV-240-TB	240 volt	50Hz	018F6702

F624	DC EVR 2/15	24 Volt D.C.		018F6857
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Danfoss



Danfoss

Sporlan Crankcase Protectors

Crankcase Protectors are designed to prevent overloading of the compressor by limiting the crankcase pressure to a predetermined maximum value during and after a defrost cycle or a shut-down period.

Code	Model	Connections	Range
F402	CRO-6	5/8	0/60 psi
F403	CRO-6	7/8	0/60 psi
F404	CRO-6	1-1/8	0/60 psi
F405	CRO-10	7/8	0/60 psi
F406	CRO-10	1-1/8	0/60 psi
F407	CRO-10	1-3/8	0/60 psi



Danfoss Crankcase Protectors

The KVL protects the compressor motor against overload during start up after a defrost or any long standstill period.

The connection size chosen must not be too small. Gas velocities in excess of 40 m/s in the inlet of the regulator can give flow noise!

Code	Model	Connections	Range	Danfoss No
F710	KVL 12	1/2 flare	0.2 to 6 bar	034L0041
F711	KVL 15	5/8 flare	0.2 to 6 bar	034L0042
F713	KVL 12	1/2 solder	0.2 to 6 bar	034L0043
F714	KVL 15	5/8 solder	0.2 to 6 bar	034L0049
F715	KVL 22	7/8 solder	0.2 to 6 bar	034L0045
F716	KVL 28	1-1/8 solder	0.2 to 6 bar	034L0046
F717	KVL 35	1-3/8 solder	0.2 to 6 bar	034L0052

Danfoss



Danfoss Evaporator Pressure Regulator

The KVP is mounted in the suction line after the evaporator to maintain a constant temperature in the evaporator or to stop the evaporator falling below a preset temperature, as protection against freezing in a water chiller.

The connection size chosen must not be too small. Gas velocities in excess of 40 m/s in the inlet of the regulator can give flow noise!

Code	Model	Connections	Range	Danfoss No
F720	KVP 12	1/2 flare	0 to 5.5 bar	034L0021
F721	KVP 15	5/8 flare	0 to 5.5 bar	034L0022
F723	KVP 12	1/2 solder	0 to 5.5 bar	034L0023
F724	KVP 15	5/8 solder	0 to 5.5 bar	034L0029
F725	KVP 22	7/8 solder	0 to 5.5 bar	034L0025
F726	KVP 28	1-1/8 solder	0 to 5.5 bar	034L0026
F727	KVP 35	1-3/8 solder	0 to 5.5 bar	034L0032

Danfoss



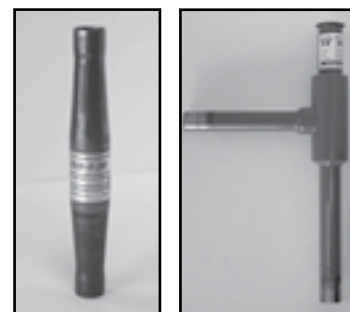
Head Pressure Controls

Head Pressure Control for systems with air-cooled condensers.

The LAC and OROA are installed on their own. The ORI range must be installed in conjunction with the ORD valve, likewise the KVR in conjunction with the NRD.



Code	Model	Connections	Range
Sporlan			
F450	LAC-4-R134a	3/8 solder	100 psi fixed
F452	OROA-5-R22	5/8 solder	180 psi fixed
F454	ORI-6	5/8 solder	65/225 psi adj.
F455	ORI-6	7/8 solder	65/225 psi adj.
F456	ORI-6	1-1/8 solder	65/225 psi adj.
F457	ORI-10	1-3/8 solder	65/225 psi adj.
F460	ORD-4-20	5/8 solder	20 psi fixed



Danfoss

F730	KVR 12	1/2 flare	5 to 17.5 bar
F731	KVR 15	5/8 flare	5 to 17.5 bar
F732	KVR 12	1/2 solder	5 to 17.5 bar
F733	KVR 15	5/8 solder	5 to 17.5 bar
F734	KVR 22	7/8 solder	5 to 17.5 bar
F735	KVR 28	1-1/8 solder	5 to 17.5 bar
F736	KVR 35	1-3/8 solder	5 to 17.5 bar
F737	NRD	1/2 solder	1.4 to 3 bar



Discharge Bypass Valves

The ADR and the KVC valves bypass a portion of the hot discharge gas directly into the low side. This provides an economical method of capacity control.

The CPCE style injects the hot gas between the expansion valve and the evaporator.

The hot gas should be injected via a LG liquid/gas mixer. This method avoids high suction super heat and protects against the evaporator icing up.



Code	Model	Connections	Range
Sporlan			
F465	ADRSE-2	3/8 solder	0/80 psi
F467	ADRSE-2	1/2 solder	0/80 psi
F469	ADRSE-2	5/8 solder	0/80 psi
F471	ADRPE-3	1/2 solder	0/80 psi
F473	ADRPE-3	5/8 solder	0/80 psi
F475	ADRHE-6	7/8 solder	0/80 psi



Danfoss

F740	KVC 12	1/2 flare	0.2 to 6 bar
F741	KVC 15	5/8 flare	0.2 to 6 bar
F742	KVC 12	1/2 solder	0.2 to 6 bar
F743	KVC 15	5/8 solder	0.2 to 6 bar
F744	KVC 22	7/8 solder	0.2 to 6 bar
F748	CPCE 12	1/2 flare	0 to 6 bar
F749	CPCE 12	1/2 solder	0 to 6 bar
F750	CPCE 15	5/8 solder	0 to 6 bar
F751	CPCE 22	7/8 solder	0 to 6 bar
F754	LG 12-16	5/8 solder	-
F755	LG 16-22	7/8 solder	-
F756	LG 16-28	1-1/8 solder	-
F757	LG-22 35	1-3/8 solder	-



Danfoss

Danfoss Water Valves

Two Way Valve to regulate the flow of water in refrigeration plant with water cooled condensers. The water valve modulates the flow to maintain the condensing pressure.

When the plant stops the water flow is shut off.

The following models are suitable for use with fresh water or neutral brine.

Models WVFX 15, 20 & 25 are also available in stainless steel for sea water use.

The connection for the condenser pressure is 1/4" flare.

Danfoss

Code	Model	Connections	Range-bar	Danfoss No
F050	WVFX 10	3/8" FPT	3.5 to 16	003N1100
F051	WVFX 15	1/2	3.5 to 16	003N2100
F052	WVFX 20	3/4	3.5 to 16	003N3100
F053	WVFX 25	1	3.5 to 16	003N4100
F054	WVFX 32	1-1/4	4 to 17	003F1232
F055	WVFX 40	1-1/2	4 to 17	003F1240

Connections FPT = Female Pipe Thread.



Danfoss Oil Pressure Differential Switches

Danfoss MP54 and MP55 oil differential controls are used as safety switches to protect compressors against low oil pressure.

If the oil pressure fails the control stops the compressor after a given time period.

The time delay also allows for the oil pressure to reach operating conditions after start up.

Danfoss

Code	Model	Delay	Differential (bar)	Danfoss No
F065	MP-54	45 Second	0.65 Fixed	060B0166
F066	MP-54	60 Second	0.65 Fixed	060B0167
F067	MP-54	90 Second	0.65 Fixed	060B0168
F068	MP-54	120 Second	0.65 Fixed	060B0169
F070	MP-55	45 Second	0.3/4.5 adj.	060B0170
F071	MP-55	60 Second	0.3/4.5 adj.	060B0171
F072	MP-55	90 Second	0.3/4.5 adj.	060B0172
F073	MP-55	120 Second	0.3/4.5 adj.	060B0173



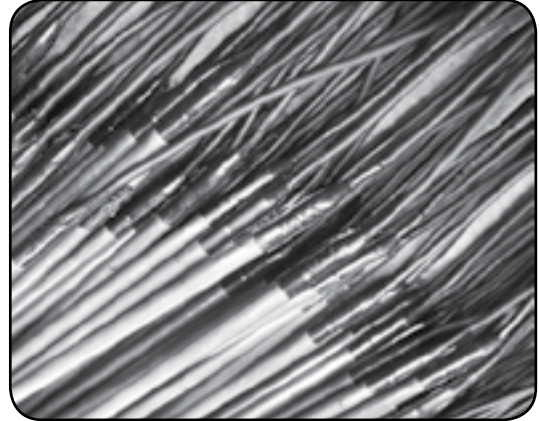
Danfoss

Defrost Heaters

These heaters are 230 volt, 50Hz and are supplied straight, they can be bent by hand to the required shape.

All heaters are supplied with cables

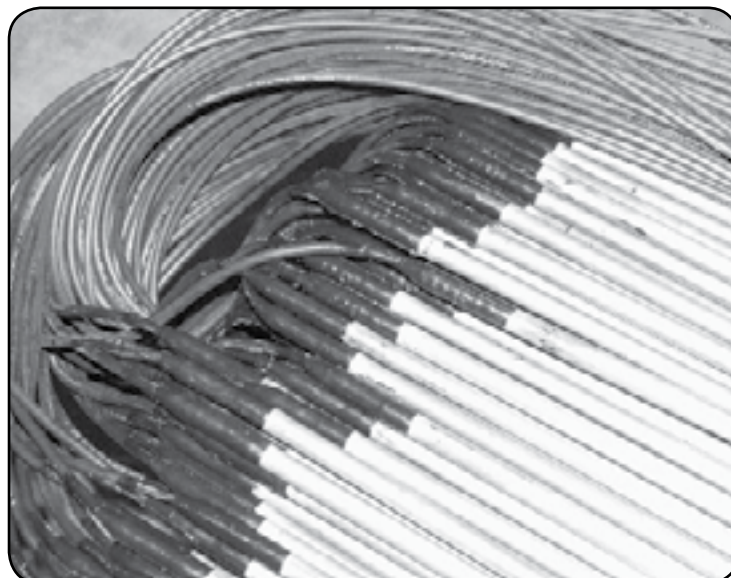
Code	Length	Watts
G350	24"	400
G352	36"	500
G353	36"	750
G355	42"	500
G359	48"	750
G363	60"	500
G365	60"	1000
G368	72"	500
G369	72"	1000
G371	84"	500
G372	84"	1000
G375	96"	500
G376	96"	1000
G380	120"	1000
G381	120"	1500
G383	130"	1500



Heaters in Series

230 volt heaters wired in series or on a 110 volt supply give approximately 22% of their rated output.vv

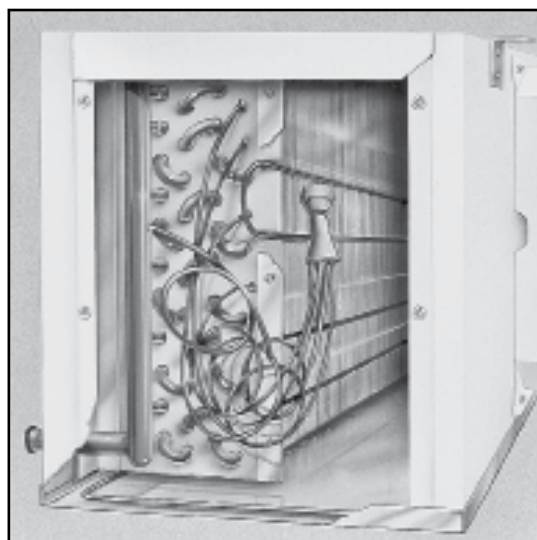
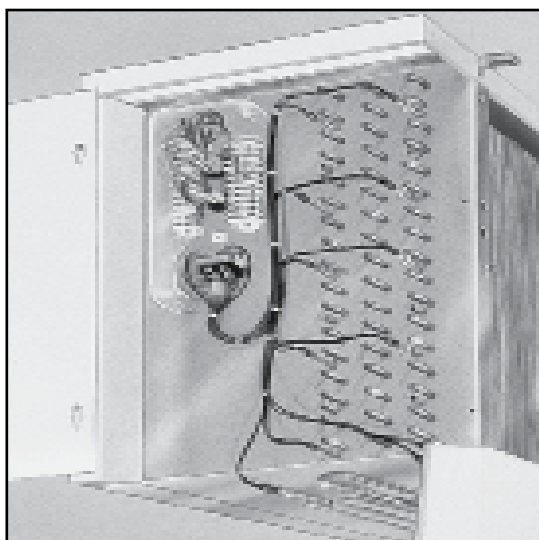
I.E. 2 x 1000 watt 230 volt heaters, wired in series would have an output of 220 watts each



Friga-Bohn Spares



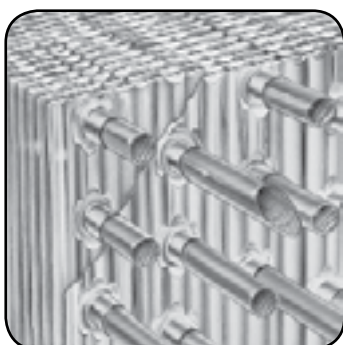
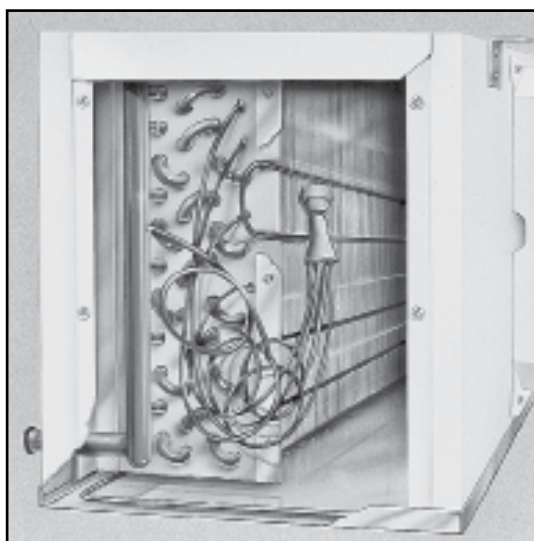
Code	Description	Part Number	To Suit
H910	Motor/Fan Assembly	PD3502900	MF/MFE & MR/MRE
H911	Motor/Fan Assembly	PD0210300	XR60, 72, 80 & 90
H912	Motor/Fan Assembly	PD0210290	XR85, 100, 105 & 122
H913	Motor/Fan Assembly	PD5F00000	SD – All Models
H914	Motor/Fan Assembly	PD6B04200	TA – 04P/230V/1/50Hz
H915	Motor/Fan Assembly	PD6B06200	TA – 06P/230V/1/50Hz
H916	Motor/Fan Assembly	PD6B08200	TA – 08P/230V/1/50Hz
H917	Motor/Fan Assembly	PD0210420	GTI – 04P/50Hz
H918	Motor/Fan Assembly	PD0210430	GTI – 06P/50Hz
H919	Motor/Fan Assembly	PD0210440	GTI – 08P/50Hz
H920	Motor/Fan Assembly	PD0210030	MUC145R to MUC620R
			LUC150C to LUC645C
H921	Motor/Fan Assembly	PD0210140	MUC780R
			LUC835C
H922	Motor/Fan Assembly	PD0210160	MUC 960R
			LUC1025C
H923	Motor/Fan Assembly	PD5900000	SK All Models
H924	Motor/Fan Assembly	PDVE00093	SKB All Models
H925	1ph Motor	PD3507000	MUC780R
			LUC835C
			MUC 960R
			LUC1025C
H930	Defrost Heater	PD650483C	MFE 1
H931	Defrost Heater	PD650484C	MFE 2
H932	Defrost Heater	PD650569C	MFE 3 & 4
H933	Defrost Heater	PD6A3315B	MRE 75
H934	Defrost Heater	PD6A3316B	MRE 110
H935	Defrost Heater	PD6A3314B	MRE 135
H936	Defrost Heater	PD6A3300B	MRE 210
H937	Defrost Heater	PD6A3299B	MRE 270
H940	Heater - Coil or Tray	PD0101136	SD024, 030, 038R
			SD021, 027, 035C
H941	Heater - Coil or Tray	PD0101137	SD052R
			SD048C
H942	Heater - Coil or Tray	PD0101138	SD062R
			SD073C
H943	Heater - Coil or Tray	PD0101139	SD082, 104, 118R
			SD095, 110C
H944	Heater - Coil or Tray	PD0101140	SD148, 158R
			SD136, 148C



Friga-Bohn Spares



Code	Description	Part Number	To Suit
H950	E1K Kit	KT5C0747C	MUC145R
H951	E1K Kit	KT5C0748C	MUC200R
H952	E1K Kit	KT5C0749C	MUC285R
H953	E1K Kit	KT5C0750C	MUC320R
H954	E1K Kit	KT5C0751C	MUC420R
H955	E1K Kit	KT5C0752C	MUC520R
H956	E1K Kit	KT5C0753C	MUC620R
H957	E1K Kit	KT5C0754C	MUC780R
H958	E1K Kit	KT5C6755C	MUC960R
H960	Coil Heater	PD0310010	LUC150, 205C
H961	Coil Heater	PD0310020	LUC290, 345C
H962	Coil Heater	PD0310030	LUC435, 545C
H963	Coil Heater	PD0310040	LUC645, 835, 1015C
H964	Tray Heater	PD0320010	LUC150, 205C
H965	Tray Heater	PD0320020	LUC290, 345C
H966	Tray Heater	PD0320030	LUC435, 545C
H967	Tray Heater	PD0320040	LUC645, 835, 1015C
H970	Coil Heater	PD010594C	SK10R, SK08C
H971	Coil Heater	PD010592C	SK12R, SK10C
H972	Coil Heater	PD010624C	SK16R, SK12C
H973	Coil Heater	PD010593C	SK19R, SK15C
H974	Coil Heater	PD010625C	SK24R, SK19C
H975	Tray Heater	PD020636C	SK10R, SK08C
H976	Tray Heater	PD020589C	SK12R, SK10C
H977	Tray Heater	PD020637C	SK16R, SK12C
H978	Tray Heater	PD020588C	SK19R, SK15C
H979	Tray Heater	PD020590C	SK24R, SK19C





S2/3HC



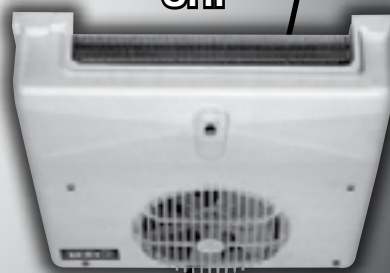
SHDN/DS



SHA



SHP



SHF



SHS



Commercial Cubic Cooler Spares – Production Models

Code	Description	Type Code	To Suit
R910	Fan Motor	W26 A	S2HC
R911	Fan Guard		S2HC
R912	Fan Mounting Brackets		S2HC
R913	Side Panel		S2HC
R920	Coil Heaters	SHC 01	S2HC 25-19-16
R921	Coil Heaters	SHC 01	S2HC 36-28-23
R922	Coil Heaters	SHC 02	S2HC 49-38-31
R923	Coil Heaters	SHC 02	S2HC 71-55-46
R924	Coil Heaters	SHC 03	S2HC 107-85-70
R925	Coil Heaters	SHC 04	S2HC 142-110-92
R926	Heater Clips		S2HC
R930	Fan Motor up to Feb02	V350 A	S3HC
	Capacitor is mounted in electrics box		
R931	Fan Motor from Feb02	V350 B	S3HC
	Capacitor is mounted on the motor		
R932	Fan Guard		S3HC
R933	Fan Mounting Brackets		S3HC
R934	Fan Motor Capacitor	6.3 MFD	S3HC
R935	Side Panel		S3HC
R940	Coil Heaters	SHC 11	S3HC 73-59-47
R941	Coil Heaters	SHC 05	
R942	Coil Heaters	SHC 11	S3HC 106-84-69
R943	Coil Heaters	SHC 05	
R944	Coil Heaters	SHC 15	S3HC 133-108-86
R945	Coil Heaters	SHC 02	
R946	Coil Heaters	SHC 12	S3HC 145-117-94
R947	Coil Heaters	SHC 03	
R948	Coil Heaters	SHC 12	S3HC 215-174-143
R949	Coil Heaters	SHC 03	
R950	Coil Heaters	SHC 13	S3HC 272-218-179
R951	Coil Heaters	SHC 06	
R952	Coil Heaters	SHC 13	S3HC 323-261-213
R953	Coil Heaters	SHC 06	
R954	Coil Heaters	SHC 14	S3HC 362-290-238
R955	Coil Heaters	SHC 07	
R956	Coil Heaters	SHC 14	S3HC 430-348-284
R957	Coil Heaters	SHC 07	

Commercial Panel Cooler Spares – Production Models

Code	Description	Type Code	To Suit
R959	Heater Clips		SHA
R960	Fan Motor	W26	SHA
R961	Fan Guard		SHA
R962	Fan Guard		SHA 60-32/ 41-50/ 28-80
R965	Coil Heaters	KIT DE12	SHA 30-41-14
R966	Coil Heaters	KIT DE 6	SHA 40-27-17
R967	Coil Heaters	KIT DE13	SHA 60-41-28
R968	Coil Heaters	KIT DE 8	SHA 80-53-35
R969	Coil Heaters	KIT DE 9	SHA 120-79-52
R970	Coil Heaters	KIT DE10	SHA 160-106-70
R971	Inspection Cover		SHA

Commercial Panel Cooler Spares – Production Models

Code	Description	Type Code	To Suit
R973	Coil Heaters	RCE 051	SHP
R974	Coil Heaters	RCE 061	SHP 11/19
R975	Fan Motor	W5/2	SHP
R976	Fan Motor	W4	SHP 11/19
R978	Coil Heaters	RCE 021	SHS 8 & 12
R979	Coil Heaters	RCE 022	SHS 13 & 15
R980	Coil Heaters	RCE 023	SHS 18 & 22
R981	Coil Heaters	Kit RCE 024	SHS 26 & 32
R982	Fan Guard		SHS
R983	Heater Clips		SHS 26 & 32
R984	Inspection Cover		SHS
R985	Coil Heaters	RAB 13	SHF 50S/55D
R986	Coil Heaters	RAB 14	SHF 60S/65D/70D

LU-VE REPLACEMENT MOTORS

Code	Description	Type Code	To Suit
R987	Fan Motor	11W/S 11W	STVF124,194, 370 2 FANS
R988	Fan Motor	7W/S 10W	STVF 47 - 139
R989	Fan Motor	V330 6P	HDS NO LONGER AVAILABLE
R990	Fan Motor HE	W7P1	STVF 47ES,67ES,75ES100ES,157ES,210E
R991	Fan Motor HE	W7P2	STVF 93ES 139ES 278ES
R992	Fan Motor	W 8	HS NO LONGER AVAILABLE
R993	Fan Motor	W5/2	HP NO LONGER AVAILABLE



Embraco Compressors



Code **Model** **Approx HP** **Disp. c.c.**

Refrigerant R134a

Evaporating range (-35/-10 Deg.C)

I031	EM 30HNP	1/10 HP	3.01
I032	EM 40HNP	1/8	3.77
I033	EM 50HNP	1/6	4.99
I034	EM 60HNP	1/6+	5.54

Refrigerant R134a

Evaporating range (-35/+15 Deg.C)

I038	EM30HHR	1/8 HP	3.47
I039	EM45HHR	1/6	4.33
I040	EM55HHR	1/5	5.54

Refrigerant R134a

Evaporating range (-35/+15 Deg.C)

I045	FFI 6HAK	1/5 HP	6.76
I046	FG 75HAK	1/5+	7.95
I048	FFI 10HAK	1/4+	10.61
I050	FFI 12HBK	1/3	11.15



Embraco HST Electrics

PW and FF Compressors may be fitted with a Start Capacitor if required.
FG Compressors can be fitted with the HST kits listed below.



Code	Type	To Suit
I055	Terminal Box	EM/FG
I057	Evaporation Tray	EM
I075	Capacitor	FF
I077	Relay & Capacitor & Box	FG75HAK



Aspera Compressors

We have listed below the most common Aspera compressors. In some cases it is impossible to fit an alternative due to the lower height of the Aspera compressor.

Code Model Approx. HP Disp. c.c.

CSR – Air Conditioning R22

I368	J9232E	1-1/4	26.20
I369	J9238E	1-1/2	32.70

LST – HBP R134a/R49

I371	J7225F	1	21.70
I382	J7228F	1-1/8	23.80
I372	J7231F	1-1/4	26.20
I373	J7238E	1-1/2	32.65
I374	J7240F	1-1/2	34.37

1PH HST – HBP R134a

I384	T6213Z	1/2	17.40
I385	T6215Z	1/2	20.40
I378	J6220Z	3/4	25.80
I379	J6226Z	1	34.37

1PH HST – LBP R404A

I386	T2168GK	3/4	17.40
I380	T2178GK	3/4	20.40
I387	T2180GK	3/4	22.40
I381	J2192GK	1	26.00
I388	J2212GK	1-1/4	34.37

1PH HST – MBP R404A

I389	T6220GK	5/8	17.40
I390	J9226GK	3/4	21.70
I391	J9232GK	1	26.20
I392	J9238GK	1-1/4	32.70

I393	EMT-22HLP	1/12	3.44
I394	EMT-36HLP	1/8	4.60

aspera



aspera



ACC Compressors

Code	Model	Approx. HP	Disp. c.c.
HST – HBP R22			
I302	L45TN	1/5	4.50 c.c
I303	L57TN	1/4	5.70
I304	L76TN	3/8	7.60
I305	L88TN	3/8	8.80
I306	P12TN	1/2	12.00
I307	R18TN-V	3/4	18.10
I308	S22TN-V	7/8	21.80
I309	S26TN-V	1	26.00

HST – LBP R134a/R49			
I327	GP14FB	1/2	14.00 c.c

LST – HBP R134a/R49			
I315	GL45PB	1/6	4.50 c.c
I316	GL60PB	1/5	5.70
I317	GL80PB	1/4	7.60
I318	GL90PB	1/4	8.80
I319	GP12PB	3/8	12.00

HST – HBP R134a/R49			
I325	GL80TB	1/4	7.60 c.c
I326	GL90TB	1/4	8.80
I328	GP12TB	3/8	12.00
I329	GP14TB	1/2	14.00
I330	GX18TB	5/8	18.10
I333	GX21TB	5/8	21.00
I334	GS26TB-V	3/4	26.00
I336	GS30TB-V	7/8	30.00
I337	MX21TB	7/8	30.00
I338	GS34TB-V	1	34.00

HST – LBP R404A			
I344	ML90FB	1/3	8.80 c.c
I346	MP12FB	3/8	12.00
I347	MP14FB	1/2	14.00
I349	MX18FB	5/8	18.00
I351	MX21FB-V	2/3	21.00
I353	MS26FB-V	3/4	26.00
I355	MS34FB-V	1	34.00

HST – H/MBP R404A/R69			
I359	ML45TB	1/5	4.50
I360	ML60TB	1/4	5.70
I361	ML80TB	3/8	7.60
I362	ML90TB	3/8	8.80
I363	MP12TB	1/2	12.00
I364	MP14TB	5/8	14.00
I357	MX18TB	3/4	18.00
I367	MS26TB-V	1	26.00



Danfoss Compressors



Code	Model	Approx. HP	Disp. c.c.
LST – LBP R134a			
I223	TL-5F	1/6	5.08
I224	NL-6F	1/5	6.13
I225	NL-7F	1/5	7.27
I226	NL-9F	1/4	8.35
I227	NL-11F	1/4	11.15

HST – L/MBP R134a

I228	TL-5FX	1/6	5.08
I229	NL-6FX	1/5	6.13
I230	NL-7FX	1/6	7.27
I231	NL-9FX	1/5	8.35
I232	NL-11FX	1/4	11.15
I233	SC-15FX	1/3	15.28
I234	SC-18FX	2/5	17.69
I235	SC-21FX	1/2	20.95
I267	GS-26MFX	3/4	26.00
I268	GS-34MFX	1	34.00

HST – L/M/HBP R134a

I238	TL-5GX	1/8	5.08
I239	FR-7.5GX	1/6	6.93
I240	FR-8.5GX	1/5	7.95
I241	FR-10GX	1/4	9.05
I242	FR-11GX	1/4	11.15
I243	SC-12GX	1/3	12.87
I244	SC-15GX	1/3	15.28
I245	SC-18GX	2/5	17.69
I246	SC-21GX	1/2	20.95
I254	GS26GHX	3/4	26.00

HST – LBP R22

I250	SC-10CX	3/8	10.30
I251	SC-12CX	1/2	12.90
I252	SC-15BMX	1/2	15.30
I253	SC-18BMX	3/4	17.70

HST – HBP R22

I247	SC-10DX	1/2	10.30
I248	SC-12DX	2/3	12.90
I249	SC-15DX	3/4	15.30

HST – LBP R404A

I256	FR-6CLX	1/3	6.23
I257	FR-8.5CLX	3/8	7.95
I258	SC-10CLX	2/5	10.29
I259	SC-12CLX	1/2	12.87
I260	SC-15CLX	2/3	15.28
I261	SC-18CLX	2/3	17.69
I265	SC-21CLX	3/4	20.95
I255	GS-26CLX	1	26.00
I266	GS-34CLX	1-1/2	34.00

HST – MBP R404A

I269	GS21-MLX	7/8	21.00
I270	GS26-MLX	1	26.00
I271	GS34-MLX	1-1/2	34.00

HST – HBP R404A

I262	SC-10DLX	1/2	10.30
I263	SC-12DLX	2/3	12.90
I264	SC-15DLX	3/4	15.30




Danfoss Compressors

Code	Model	Disp. c.c.
LST - LBP R600a		
I191	TLES4KK2	3.9
I192	TLES5KK2	5.1
I193	TLES7KK2	6.5
I194	TLY7KK2	6.5
I195	TLY8KK2	7.8
I196	TLES9KK2	8.8
I197	TLES9KK2	8.8
I198	NLY9KK	8.4
I199	NLE11KK2	11.2
I200	NLE13KK2	13.3
I203	NLE15KK2	14.7

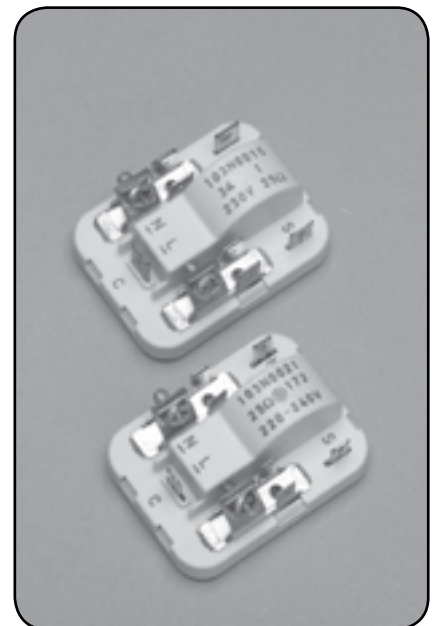


Please Note: Danfoss R600a compressors are available for service to R600a appliances that have been certified regarding the use of Flammable Refrigerants. It is imperative that only Engineers with the appropriate training carry out servicing of such appliances.

Danfoss Electrics

Code	Model	To Suit
LST Relays		
I275	103N 0011	PL-TL-NL-FR-SC
HST Relays		
I276	117U 6009	TL3B-4A-4F
I277	117U 6004	TL4B-5A-5G-5F/6F/FR7.5A
I278	117U 6000	NL7F/FR8.5A-6B
I279	117U 6001	NL9F/FR10A-7.5B-7.5G
I280	117U 6015	FR8.5B-8.5G
I281	117U 6010	FR10B-10G-11B-11G
I282	117U 6016	NL11F/FR11A
I283	117U 6002	SC12A-10B
I284	117U 6003	SC15A-12B-12G
I285	117U 6005	SC18A-15B-15G
I286	117U 6011	SC21A-18B
I287	117U 6019	SC18G-15CL-12DL
Starting Kits		
I288	117U 7011	SC15DL
I289	117U 7012	SC18CL
I290	117U 7028	SC21G
I266	117U 7070	GS21ML-GS26GH
I267	117U 7056	GS26CL-GS34MF
I268	117U 7055	GS26MF
I269	117U 7072	GS26ML
I270	117U 7073	GS34ML
I271	117U 7074	GS34CL
Capacitors		
I291	117U 5014	TL
I292	117U 5015	NL-FR
I293	117U 5017	SC

Danfoss



L'Unite Hermetique Compressors

Code	Model	Approx. HP	Disp. c.c.
1PH LST - LBP R404A			
I405	AE 1417Z	1/2	11.30

1PH HST - LBP R404A

I415	AEZ2415Z	1/2	8.01
I406	CAE2417Z	1/2	11.30
I407	CAE2420Z	1/2	12.54
I408	CAJ 2428Z	1/2	15.20
I409	CAJ 2432Z	5/8	18.30
I410	CAJ 2446Z	3/4	26.15
I411	CAJ 2464Z	1-1/2	34.45
I412	FH2480Z	2	53.20
I413	FH2511Z	2-1/2	74.25

3PH - LBP R404A

I414	TAJ 2446Z	3/4	26.15
I416	TAJ 2464Z	1-1/2	34.45
I418	TFH2480Z	2	53.20
I420	TFH2511Z	2-1/2	74.25
I421	TAG2516Z	4	112.50
I422	TAG2522Z	5	134.80

1PH HST - HBP R22/R404A

I419	AEZ4430Z	1/4	5.70
I423	AEZ9440Z	3/8	7.55
I425	CAE9450Z	3/8	9.40
I426	CAE9460Z	1/2	11.30
I427	CAE9470Z	5/8	13.30
I428	CAJ9480Z	5/8	15.20
I429	CAJ9510Z	3/4	18.30
I430	CAJ9513Z	1	24.20
I431	CAJ4517Z	1-1/4	25.95
I432	CAJ4519Z	1-1/2	34.45
I433	FH4524Z	2	43.90
I434	FH4531Z	2-1/2	58.10
I438	FH4540Z	3	74.20

3PH - HBP R22/R404A

I435	TAJ9513Z	1	24.20
I436	TAJ4517Z	1-1/4	25.95
I437	TAJ4519Z	1-1/2	34.45
I439	TFH4524Z	2	43.90
I440	TFH4531Z	2-1/2	58.10
I441	TFH4540Z	3	74.25
I442	TAG4546Z	4	90.20
I443	TAG4553Z	4-1/2	100.70
I444	TAG4561Z	5	112.50
I445	TAG4568Z	6	124.40
I446	TAG4573Z	6-1/2	134.80



L'Unite Hermetique Compressors

Code	Model	Approx. HP	Disp. c.c.
1PH LST – LBP R134a/R49			
I600	THB1335Y	1/9	3.58
I601	THB1340Y	1/8	4.23
I602	THB1350Y	1/7	5.60
I603	THB1360Y	1/6	6.10
I395	AZ1320Y	1/12	2.95
I396	AZ1330Y	1/10	3.60
I397	AZ1335Y	1/8	4.00
I398	AZ1339Y	1/7	5.00
I399	AZ1348Y	1/6	5.60
I400	AZ1355Y	1/5	5.90
I401	AEZ1370Y	1/5	8.10
I402	AEZ1365Y	1/5	8.90
I403	AE1380Y	1/4	9.40
I404	AE1410Y	1/3	12.05
I530	AE1412Y	3/8	14.15

1PH HST – LBP R134a/R49

I531	AEZ2380Y	1/4	9.40
I532	CAE2410Y	1/3	12.05
I533	CAE2412Y	3/8	14.15
I534	CAE2414Y	3/8	16.00

1PH HST – HBP R134a/R49

IA446	AZ4410Y	1/10	2.95
IA447	AZ4412Y	1/8	3.60
IA448	AZ4414Y	1/6	4.00
IA449	AZ4419Y	1/5	5.60
I450	AEZ4425Y	1/5	7.55
I451	AEZ4430Y	1/4	8.85
I452	CAE4440Y	1/3	12.05
I448	CAE4448Y	3/8	14.15
I453	CAJ4452Y	3/8	15.20
I457	CAE4456Y	3/8	16.00
I454	CAJ4461Y	1/2	18.30
I449	CAJ4476Y	5/8	21.75
I455	CAJ4492Y	3/4	25.95
I456	CAJ4511Y	1	32.70
I458	FH4518Y	1-1/2	53.20
I460	FH4525Y	2	74.25

3PH - HBP R134a/R49

I463	TAJ4511Y	1	32.70
I464	TFH4518Y	1-1/2	53.20
I465	TFH4525Y	2	74.25
I466	TAG4528Y	2-1/2	90.20
I467	TAG4534Y	2-3/4	100.70
I468	TAG4537Y	3-1/4	112.50
I469	TAG4543Y	3-1/2	124.40



L'Unite Hermetique Compressors

Code	Model	Approx. HP	Disp. c.c.
PSC - Air Conditioning R22			
I480	AE 5465E	1/2	12.05
I481	AE 5470E	5/8	13.25
I482	AJ 5510F	3/4	18.60
I483	AJ 5512E	7/8	21.75
I484	AJ 5513E	1	24.20
I485	AJ 5515E	1-1/4	25.95
I486	AJ 5518E	1-1/2	32.70
I487	AJ 5519E	1-1/2	34.45
I488	FH 5522F	1-3/4	40.80
I489	FH 5524F	2	43.90
I490	FH 5527F	2-1/4	51.10
I491	FH 5531E	2-1/2	58.10
I492	FH 5540E	3	74.15

CSR - Air Conditioning R22

I494	AE 5465E	1/2	12.05
I495	AE 5470E	5/8	13.25
I496	AJ 5510F	3/4	18.60
I497	AJ 5512E	7/8	21.75
I498	AJ 5513E	1	24.20
I499	AJ 5515E	1-1/4	25.95
I500	AJ 5518E	1-1/2	32.70
I501	AJ 5519E	1-1/2	34.45
I502	FH 5522F	1-3/4	40.80
I503	FH 5524F	2	43.90
I504	FH 5527F	2-1/4	51.10
I505	FH 5531E	2-1/2	58.10
I506	FH 5540F	3	74.15

3PH - Air Conditioning R22

I509	TAJ 5515E	1-1/4	25.95
I510	TAJ 5519E	1-1/2	34.45
I511	TFH 5522E	1-3/4	40.80
I512	TFH 5524F	2	43.90
I513	TFH 5527E	2-1/4	49.10
I514	TFH 5531E	2-1/2	56.65
I515	TFH 5540F	3	74.15
I516	TAG 5546E	4	90.20
I517	TAG 5553E	4-1/2	100.70
I518	TAG 5561E	5	112.50
I519	TAG 5568E	6	124.40

PSC Models are Low Start Torque and include Run Capacitor.

CSR Models are High Start Torque and include Relay, Start and Run Capacitors.



**L'UNITE
HERMETIQUE**



Tecumseh

L'Unite Hermetique Compressors

Code	Model	Approx. HP	Disp. c.c.
CSR - Air Conditioning R407C			
IL494	AE5465C	1/2	12.05
IL495	AE5470C	5/8	13.25
IL496	AJ5510C	3/4	18.60
IL497	AJ5512C	7/8	21.75
IL498	AJ5513C	1	24.20
IL499	AJ5515C	1-1/4	25.95
IL500	AJ5518C	1-1/2	32.70
IL501	AJ5519C	1-1/2	34.45
IL502	FH5522C	1-3/4	40.80
IL503	FH5524C	2	43.90
IL504	FH5527C	2-1/4	51.10
IL505	FH5531C	2-1/2	58.10
IL506	FH5540C	3	74.15

3PH - Air Conditioning R407C

IL509	TAJ 5515C	1-1/4	25.95
IL510	TAJ 5519C	1-1/2	34.45
IL511	TFH 5522C	1-3/4	40.80
IL512	TFH 5524C	2	43.90
IL513	TFH 5527C	2-1/4	49.10
IL514	TFH 5531C	2-1/2	56.65
IL515	TFH 5540C	3	74.15
IL516	TAG 5546C	4	90.20
IL517	TAG 5553C	4-1/2	100.70
IL518	TAG 5561C	5	112.50
IL519	TAG 5568C	6	124.40

CSR Models are High Start Torque and include Relay, Start and Run Capacitors.



Crankcase Heater

Wrap a Round 65 watt Crankcase Heater

Code	Model
IL540	CH-1 Crankcase Heater 65W x 950 long (Fits around a 300 mm Max diameter)



L'Unite Rotary Compressors

The L'Unite Hermetique range of Rotary Compressors can be used as replacements in many types of air conditioning systems. When selecting an equivalent you **must not** compare the displacement of a rotary compressor with that of a reciprocating compressor.



Code	Model	Disp. c.c.
PSC – Air Conditioning R22		
I470	RK 5480E-PSC	11.40 c.c.
I471	RK 5490E-PSC	12.90
I472	RK 5510E-PSC	14.60
I473	RK 5512E-PSC	16.30
I474	RK 5513E-PSC	18.10
I475	RK 5515E-PSC	21.40
I476	RK 5518E-PSC	24.40

Code	Model	Disp. c.c.
PSC – Air Conditioning R407C		
IL470	RK5480C	11.40 c.c.
IL471	RK5490C	12.90
IL472	RK5510C	14.60
IL473	RK5512C	16.30
IL474	RK5513C	18.10
IL475	RK5515C	21.40
IL476	RK5518C	24.40



LG Compressors

The LG range of Rotary Compressors can be used as replacements in many types of air conditioning systems.

We have selected four models to cover the most common size systems and although some alteration in pipe-work may be necessary the price savings will more than compensate. These compressors are suitable for R22 or R59.

The capacities listed along side the models are nominal and given for guidance only

Code	Model	Duty
CSR – R22 and 59		
I090	QK 164 PN12C	2.6 kW
I091	QJ 208 PD23B	3.5
I092	QJ 292 PD23D	5.0
I093	QP 407PD24A	6.9



L'Unite Hermetique Spares

Code Part No To Suit

Electric Kits

IS400	8 655 007	AE 1417Z
IS401	8 655 025	CAE 2420Z
IS402	8 655 022	AEZ4425Y
IS403	8 655 023	AEZ4430Y
IS404	8 655 028	CAE4440Y
IS405	8 655 073	CAE4448Y
IS406	8 655 050	AE 5465/5470E
IS408	8 655 051	AJ 5510F
IS409	8 655 053	AJ 5512E
IS410	8 655 054	AJ 5513E
IS411	8 655 055	AJ 5515E
IS412	8 655 056	AJ 5518E
IS413	8 655 057	AJ 5519E
IS414	8 655 058	FH 5522F
IS415	8 655 154	FH 5524F
IS416	8 655 060	FH 5527F
IS417	8 655 079	FH 5531F

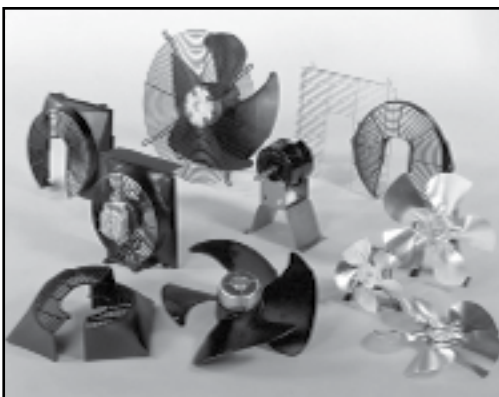
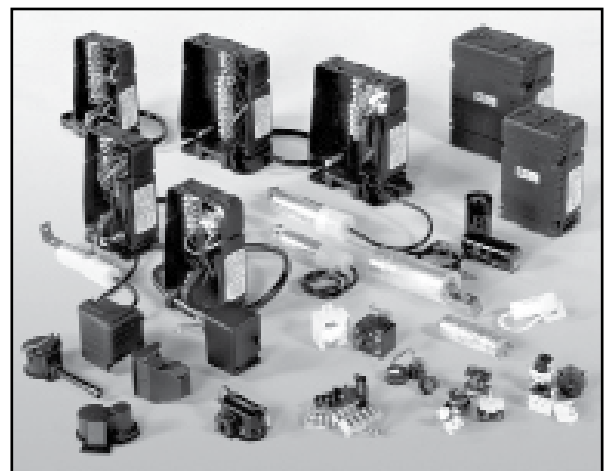
Electric Kits c/w Case

IS420	8 657 114	CAE 2417Z
IS421	8 657 029	CAJ 2428Z
IS422	8 657 006	CAJ 2432Z
IS423	8 657 007	CAJ 2446Z
IS424	8 657 180	CAJ 2464Z
IS425	8 657 097	FH2480Z
IS426	8 657 153	FH2511Z
IS427	8 657 160	AEZ9440Z
IS428	8 657 112	CAE9450Z
IS429	8 657 220	CAE9460Z
IS430	8 657 085	CAE9470Z
IS431	8 657 079	CAJ9480Z
IS432	8 657 082	CAJ9510Z
IS433	8 657 086	CAJ9513Z
IS434	8 657 084	CAJ4517Z
IS435	8 657 094	CAJ4519Z
IS436	8 657 153	FH4524Z
IS437	8 657 093	FH4531Z
IS438	8 657 030	CAJ4452Y
IS439	8 657 025	CAJ4461Y
IS440	8 657 096	CAJ4476Y
IS441	8 657 201	CAJ4492Y
IS442	8 657 002	CAJ4511Y
IS443	8 657 100	FH4518Y
IS444	8 657 103	FH4525Y

Code Size

Rotalock Valves

IS450	1" -14 - 1/2"
IS451	1" - 14 - 5/8"
IS452	1-1/4" -12 - 5/8"
IS453	1-1/4" - 12 - 3/4"
IS454	1-1/4" - 12 - 7/8"
IS455	1-1/4" - 12 - 1-1/8"
IS456	1-3/4" - 12 - 1-1/8"
IS457	1-3/4" - 12 - 1-3/8"
IS458	1" - 14 Gasket
IS459	1-1/4" - 12 Gasket
IS460	1-3/4" - 12 Gasket



Maneurop Compressors

Code	Model	Approx.HP	Disp. c.c.
1PH - R134a/R404A/R507			
I675	MTZ 18/5 SR	1-1/2	30
I676	MTZ 22/5 ER	1-3/4	38
I677	MTZ 28/5 ER	2	48
I678	MTZ 32/5 ER	2-3/4	53
I679	MTZ 36/5 ER	3	60
3PH - R134a/R404A/R507			
I682	MTZ 22/4 ER	1-3/4	38
I683	MTZ 28/4 ER	2	48
I684	MTZ 32/4 ER	2-3/4	53
I685	MTZ 36/4 ER	3	60
I686	MTZ 40 ER	3-1/2	67
I687	MTZ 44 ER	3-3/4	76
I688	MTZ 50 ER	4	85
I689	MTZ 56 ER	4-1/2	96
I690	MTZ 64 ER	5	107
I691	MTZ 72 ER	6	121
I692	MTZ 80 ER	6-1/2	135
I693	MTZ 100 ER	8-1/2	171
I694	MTZ 125 ER	10	215
I695	MTZ 144 ER	11-1/2	242
I696	MTZ 160 ER	13	271



Single phase compressors are supplied WITHOUT Electrics.
All Maneurop compressors are supplied without valves (Please order separately).

Maneurop Condensing Units are available to order.

Accessories for Maneurop Compressors

Code	Description	To Suit
CSR Electric Kit		
I710	CSR-2/631	18,22 and 28
I711	CSR-2/633	32 and 36
Crankcase Heater		
I714	30 Watt Heater	All Models
I715	Heat Transfer Paste	
Maneurop Oil		
I718	2 Litre Mineral Oil	MT Models
I719	2 Litre Ester Oil	MTE/Z Models
Rotolock Valves		
I722	3/8" Discharge	18 to 28
I723	1/2 Suction	18 to 28
I725	1/2 Discharge	32 to 40
I726	5/8 Suction	32 to 40
I728	3/4 Discharge	44 to 80
I729	7/8 Suction	44 to 72
I731	7/8 Discharge	100 to 160
I732	1-1/8 Suction	80 to 160



Copeland Scroll Compressors

The following models all charged with **ester oil**.

Many other codes exist; if you require any help with identifying a particular model please give us a call.

Code Model Approx. HP

1PH – Medium/High Temperature

I940	ZR18KE-PFJ	1-1/2
I941	ZR22KE-PFJ	1-3/4
I945	ZR28KE-PFJ	2-1/8
I946	ZR34KE-PFJ	3
I947	ZR40KE-PFJ	3-1/2
I948	ZR48KE-PFJ	4
I951	ZR61KE-PFJ	5

I942	ZB19KE-PFJ	2-1/2
I943	ZB21KE-PFJ	3
I944	ZB26KE-PFJ	3-1/2

3PH – Medium/High Temperature

I953	ZR22KE-TFD	1-3/4
I955	ZR28KE-TFD	2-1/2
I957	ZR34KE-TFD	3
I959	ZR40KE-TFD	3-1/2
I965	ZR48KE-TFD	4
I967	ZR61KE-TFD	5
I969	ZR72KE-TFD	6
I971	ZR81KE-TFD	6-1/2

I949	ZB15KE-TFD	2
I950	ZB19KE-TFD	2-1/2
I952	ZB21KE-TFD	3
I954	ZB26KE-TFD	3-1/2
I956	ZB30KE-TFD	4
I958	ZB38KE-TFD	5
I960	ZB45KE-TFD	6

I961	ZS56KE-TWD	7-1/2
I962	ZS75KE-TWD	10
I963	ZS92ME-TWD	12
I964	ZS11ME-TWD	15

3PH – Low Temperature

I966	ZF09KE-TFD	2-3/4
I968	ZF11KE-TFD	3-1/2
I970	ZF13KE-TFD	4
I972	ZF15KE-TFD	4-1/8
I974	ZF18KE-TFD	5-1/2
I976	ZF24KE-TWD	7-12
I978	ZF33KE-TWD	10-12
I979	ZF40KE-TWD	12-1/2
I980	ZF48KE-TWD	15

I981	ZR90KE-TWD	7-1/2
I982	ZR11ME-TWD	9
I983	ZR12ME-TWD	10
I984	ZR16ME-TWD	13

Application and Temperature Ranges:

Low Temperature	: ZF: between +7 and -45°C (with liquid injection)
Medium Temperature	: ZS: between +7 and -30°C
High Temperature	: ZB: optimized for refrigeration applications between +10 and -30°C.

Air-conditioning scroll compressors ZR are suitable for use in high and medium temperature air-conditioning and process cooling applications with evaporating temperatures ranging from +12.5 to -20°C.



Copeland Standard Compressors

Compressors are supplied without valves and electrics and charged with **Ester Oil**.

Code	Model	Approx. HP	Number of Cylinders	Disp. @ 50hz Cu.m/hr
1PH – 230 volt 50Hz				
IC800	DKJ-10X	1	2	5.1
IC801	DKJ-7X	1	2	5.1
IC802	DKSJ-10X	1	2	6.3
IC803	DKSJ-15X	1-1/2	2	6.3
IC804	DKL-15X	1-1/2	2	7.4

Direct on Line Start – 3PH – 380 volt 50Hz

IC810	DKM-7X	1	2	4.0
IC811	DKJ-10X	1	2	5.1
IC812	DKJ-7X	1	2	5.1
IC813	DKSJ-10X	1	2	6.3
IC814	DKSJ-15X	1-1/2	2	6.3
IC815	DKL-15X	1-1/2	2	7.4
IC816	DKSL-15X	1-1/2	2	9.1
IC817	DKSL-20X	2	2	9.1
IC818	DLE-20X	2	2	9.9
IC819	DLF-20X	2	2	12.9
IC820	DLF-30X	3	2	12.9
IC821	DLJ-20X	2	2	14.5
IC822	DLJ-30X	3	2	14.5
IC823	DLL-40X	4	2	18.2
IC824	DLL-30X	3	2	18.2
IC825	DLSG-40X	4	2	22.5
IC826	D2SA1-45X	4-1/2	2	22.4
IC827	DLHA-50X	5	2	26.6
IC828	D2SC-55X	5-1/2	2	26.8
IC829	D2SK-65X	6-1/2	2	31.2

Part Wind Start – 3PH – 380 volt 50Hz

IC830	D3SC1-75X	7-1/2	3	37.9
IC831	D3SSI-100X	10	3	49.9
IC832	D4SA-200X	20	4	56.0
IC833	D4SA-100X	10	4	56.0
IC834	D4SF-100X	10	4	56.0
IC835	D4SH-250X	25	4	70.8
IC836	D4SL-150X	15	4	70.8
IC837	D4SH-150X	15	4	70.9
IC838	D6SA-300X	30	6	84.0
IC839	D6SF-200X	20	6	84.0
IC840	D4SJ-200X	20	4	84.6
IC841	D4SJ-300X	30	4	84.7
IC842	D4ST-200X	20	4	84.7
IC843	D6SH-200X	20	6	106.2
IC844	D6SH-350X	35	6	106.3
IC845	D6SL-250X	25	6	106.3
IC846	D6SJ-300X	30	6	127.0
IC847	D6SJ-400X	40	6	127.2
IC848	D6ST-320X	32	6	127.2
IC849	D8SH-370X	37	8	151.0
IC850	D8SH-400X	40	8	151.0
IC851	D8SH-500X	50	8	151.0
IC852	D8SJ-450X	45	8	180.6
IC853	D8SJ-600X	60	8	180.6
IC854	D8SJ-500X	50	8	180.7
IC855	D8SK-600X	60	8	210.0
IC856	D8SK-700X	70	8	210.0



Copeland Compressor Accessories

Code Description

1PH Electric Kits – Not Boxed

I800	To suit 1/2 and 3/4 HP models
I801	To suit 1HP models
I802	To suit 1-1/2HP models
I803	To suit 2HP Models
I804	To suit 3HP Models

1PH Electric Kits –Boxed

I806	To suit DKM5X
I807	To suit DKM7X, DKJ7X
I808	To suit DKJ10X, DKSJ10X
I809	To suit DKSJ15X, DKL15X, DKSL15X

Internal C/C Heater

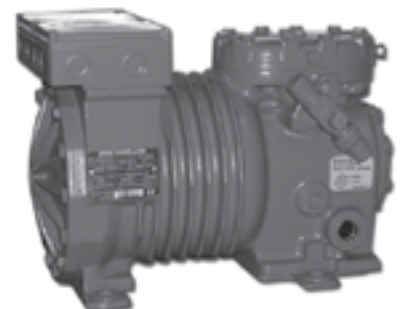
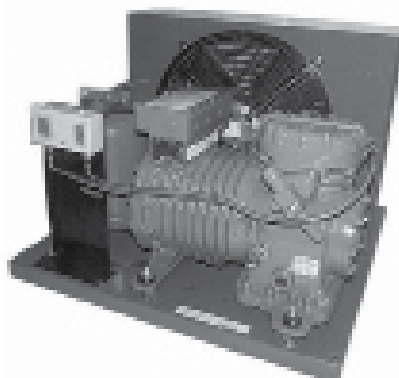
I892	27 Watt To suit DK
I893	70 Watt To suit DL, DLHA, D2S
I894	70 Watt To suit D2D, D3S/D, D9
I895	100 Watt To suit D4S/D, D6S/D, CC
I896	200 Watt To suit D4S/D, D6S/D, D8S/D

External C/C Heater

I897	50 Watt To suit DK
I898	65 Watt To suit DL, DLHA, DN, DM, D2S/D, D9, D3S/D

Cooling Fan

I899	1PH - Top Mtg for DK
I900	1PH - Side Mtg for DK
I901	1PH - Side Mtg for DL
I902	1PH - Top Mtg for DL, DLHA, DN, DM, D2S/D, D3S/D, D9
I903	1PH - Top Mtg for D4S/D, D6S/D, D8S/D
	4/6/8CC (excludes D4/6/8SJ/8SK)
I904	1PH - Top Mtg for D4SJ, D6SJ, D8SJ, D8SK
I905	3PH - Top Mtg for DL, DLHA, DN, DM, D2S/D, D3S/D, D9
I906	3PH - Top Mtg for D4S/D, D6S/D, D8S/D
	4/6/8CC (excludes D4/6/8SJ/8SK)
I907	3PH - Top Mtg for D4SJ, D6SJ, D8SJ, D8SK

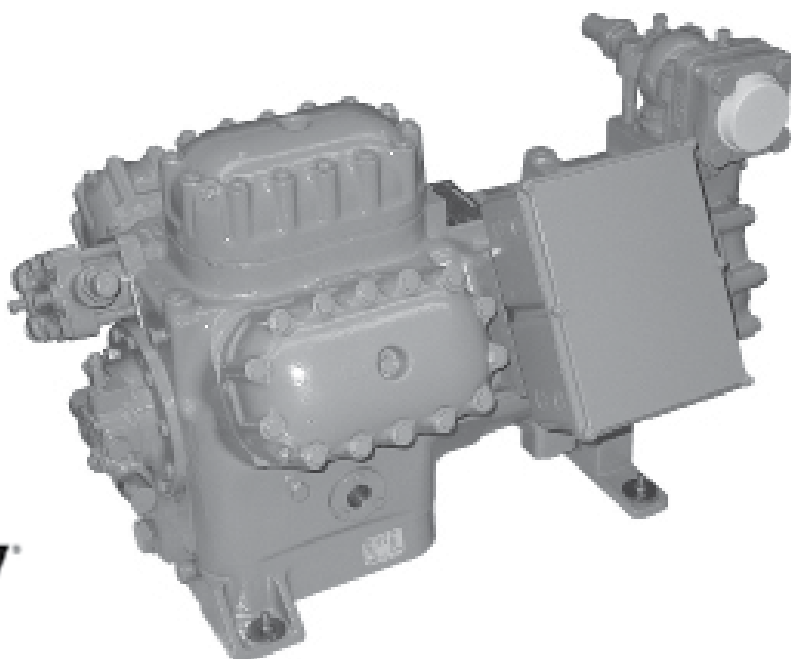


Copeland Discus Compressors

Compressors are supplied without valves and electrics.
All models are charged with **Ester Oil**.



Code	Model	Approx. HP	Number of Cylinders	Disp. @ 50hz Cu.m/hr
Part Wind Start – 3PH 380 volt 50Hz				
IC860	D2DC-50X	5	2	16.8
IC861	D2DD-50X	5	2	19.3
IC862	D2DL-40X	4	2	23.7
IC863	D2DL-75X	7-1/2	2	23.7
IC864	D2DB-50X	5	2	28.0
IC865	D2DB-75X	7-1/2	2	28.0
IC866	D3DA-50X	5	3	32.1
IC867	D3DA-75X	7-1/2	3	32.1
IC868	D3DC-75X	7-1/2	3	37.9
IC869	D3DC-100X	10	3	37.9
IC870	D3DS-100X	10	3	49.9
IC871	D3DS-150X	15	3	49.9
IC872	D4DA-200X	20	4	56.0
IC873	D4DA-100X	10	4	56.0
IC874	D4DF-100X	10	4	56.0
IC875	D4DH-250X	25	4	70.8
IC876	D4DL-150X	15	4	70.8
IC877	D4DH-150X	15	4	70.9
IC878	D4DJ-300X	30	4	84.7
IC879	D4DT-220X	22	4	84.7
IC880	D4DJ-200X	20	4	84.7
IC881	D6DH-350X	35	6	106.2
IC882	D6DL-270X	27	6	106.2
IC883	D6DH-200X	20	6	106.3
IC884	D6DJ-400X	40	6	127.0
IC885	D6DJ-300X	30	6	127.0
IC886	D6DT-300X	30	6	127.0
IC887	D8DH-400X	40	8	151.0
IC888	D8DH-500X	50	8	151.0
IC889	D8DL-370X	37	8	151.0
IC890	D8DL-600X	60	8	181.0
IC891	D8DJ-500X	50	8	181.0
IC892	D8DT-450X	45	8	181.0



Compressor Comparison Chart

These charts are for comparison only and do not necessarily indicate a direct replacement. It will be necessary to determine whether high or low start torque and whether fan cooling or oil cooling is required.

Low Back Pressure - R502						
Disp. c.c.	Aspera	Danfoss	L'Unite	Necchi	Prestcold	ACC
11.0 - 11.9	-	-	CAE2417L	A11RV	-	-
12.0 - 12.9	-	SC12BX	-	-	-	-
13.0 - 13.9	-	-	-	A13RV	-	-
14.0 - 14.9	T2155K	-	-	-	-	-
15.0 - 15.9	-	SC15BX	CAJ2428L	-	-	S15FN
17.0 - 17.9	T2168K	SC18BX	-	N17RV	-	-
18.0 - 18.9	-	-	CAJ2432L	-	AKL19J	-
21.0 - 21.9	T2178K	SC21BX	-	N21RV	AKL22J	-
26.0 - 26.9	J2192K	-	CAJ2446L	-	AKL26J	S26FK

Low Back Pressure - R404A				
Disp. c.c.	Aspera	Danfoss	L'Unite	ACC
4.5 - 4.9	-	-	-	ML45FB
5.0 - 5.4	-	-	-	-
5.5 - 5.9	-	-	-	ML60FB
6.0 - 6.4	-	-	-	-
6.5 - 7.4	-	-	-	-
7.5 - 7.9	-	-	-	-
8.0 - 8.8	-	-	AEZ2415Z	ML80FB
8.5 - 8.9	E2125GK	-	-	ML90FB
9.0 - 9.4	-	-	-	-
9.5 - 10.9	-	SC10CL	-	-
11.0 - 11.9	-	-	AE/CAE2417Z	-
12.0 - 12.9	E2134GK	SC12CL	AE1420Z CAE2420Z	MP12FB
13.0 - 13.9	-	-	-	-
14.0 - 14.9	T2155GK	-	-	MP14FB
15.0 - 15.9	-	SC15CL	CAJ2424Z CAJ2428Z	MR16FB
17.0 - 17.9	T2168GK	SC18CL	-	-
18.0 - 18.9	-	-	CAJ2432Z	MK/MR18FB
21.0 - 21.9	T2178GK	-	-	MK/MR21FB
22.0 - 25.9	T2180GK	-	-	MS26FB
26.0 - 26.9	J2192GK	-	CAJ2446Z	-
27.0 - 30.0	-	-	-	MS30FB
31.0 - 34.0	J2212K	-	CAE2464Z	MS34FB

High Back Pressure - R404A				
Disp. c.c.	Aspera	Danfoss	L'Unite	ACC
3.0 - 4.4	-	-	-	ML40TB
4.5 - 4.9	B6144GK	-	AEZ4425Z	ML45TB
5.0 - 5.4	-	-	-	-
5.5 - 5.9	-	-	AEZ4430Z	ML60TB
6.0 - 6.4	B6165GK	-	-	-
6.5 - 7.4	B6181GK	-	-	-
7.5 - 7.9	-	-	AEZ4440Z	ML80TB
8.0 - 8.8	-	-	-	ML90TB
8.5 - 8.9	B6210GK	-	-	-
9.0 - 9.4	-	-	CAE9450Z	-
9.5 - 10.9	-	-	-	-
11.0 - 11.9	-	-	CAE9460Z	-
12.0 - 12.9	B9213GK	-	-	MP12TB
13.0 - 13.9	-	-	-	-
14.0 - 14.9	-	-	-	-
15.0 - 15.9	-	-	CAJ9480Z	MK16TB
17.0 - 17.9	T6220GK	-	-	-
18.0 - 18.9	-	-	CAJ9510Z	MR18TB
21.0 - 21.9	J9226GK	-	-	-
22.0 - 25.9	-	-	CAJ4517Z	MR22TB
26.0 - 26.9	J9232GK	-	-	MS26TB



Compressor Comparison Chart

These charts are for comparison only and do not necessarily indicate a direct replacement. It will be necessary to determine whether high or low start torque and whether fan cooling or oil cooling is required.

Low Back Pressure - R12								
Disp. c.c.	Aspera	Danfoss	Embraco	LEC	L'Unite	Necchi	Sicom	ACC
2.5 - 2.9	-	TL2.5	-	-	-	M2.5J	-	-
3.0 - 3.4	A1055A	TL3A	EM30	-	-	M3J	-	L33AS
3.5 - 3.9	-	TL4A	EM40	LF14	-	M3.5J	-	-
4.0 - 4.4	A1075A	-	-	12L264	AE12Z7	M4J	-	L40AS
4.5 - 4.9	A1085A	-	EM55	8L300	AE8ZA7	-	AE1336A	L45AS
5.0 - 5.4	-	TL5A	-	-	-	M5J	-	-
5.5 - 5.9	A1111A	-	-	-	AE6ZD7	-	AE1343A	L55AS
6.0 - 6.4	-	-	FF6	6L377	-	-	-	-
6.5 - 7.4	-	FR7.5A	FF7.5	-	-	M7KJ	-	L65AS
7.5 - 7.9	-	-	-	5L476	AE5ZF9	-	AE1360A	L76AS
8.0 - 8.8	A1117A	FR8.5A	FF8.5	-	-	-	-	L88AS
8.5 - 8.9	A1118A	-	-	-	AE4ZF11	-	AE1380A	-
9.0 - 9.4	-	FR10A	FF10	4L570	-	M9SJ	-	-
9.5 - 10.9	-	FR11A	-	-	-	M11K	-	L99AS
11.0 - 11.9	-	-	FF12	4L690	-	A11K	-	-
12.0 - 12.9	E1121A	SC12A	-	3L766	AE1410A	-	AE2410A	-
13.0 - 13.9	T3124A	-	-	-	-	A13K	-	-
14.0 - 14.9	T3128A	-	-	-	AE1412A	-	-	-
15.0 - 15.9	E2130A	SC15A	-	-	-	-	-	-
16.0 - 16.9	-	-	-	-	-	-	AE2415A	-
17.0 - 17.9	T2134A	SC18A	-	-	-	N17V	-	-

Low Back Pressure - R134a						
Disp. c.c.	Aspera	Danfoss	Embraco	Necchi	Sicom	ACC
2.5 - 2.9	-	TL2.5F	-	-	-	-
3.0 - 3.4	BP1058Z	TL3F	EM30HNP	ETR3	-	GD33AA
3.5 - 3.9	-	TL4F	EM40HNP	ETR3.5	-	GD36AA
4.0 - 4.4	BP1072Z	-	-	ETR4	AZ1335YS	GL40AB/AA
4.5 - 4.9	BP1084Z	-	EM50HNP	-	-	GL45AA
5.0 - 5.4	-	TLS5F	-	ETR5	-	GL50AB/AA
5.5 - 5.9	BP1111Z	TLS6F	EM60HNP	ETR5.5	AZ1345YS	-
6.0 - 6.4	-	NL6F	FFI-6HAK	-	-	GL60AB/AA
6.5 - 7.4	-	NL7F	FG75HAK	ESR7/7K	AZ1360YS	GL70AB/AA
8.0 - 8.8	NB1116Z	NL9F	FG85HAK	ESR8/8K	-	GL80AB/AA
8.5 - 8.9	NB1118Z	-	FG95HAK	-	-	-
9.0 - 9.4	-	-	-	ESR9/9K	AZ1390YS	GL90AA
9.5 - 10.9	-	-	-	ESR11/11K	-	GL99AA
11.0 - 11.9	-	NL11F	FF12HBK	-	-	-
12.0 - 12.9	-	-	-	-	-	GP12CB
13.0 - 13.9	NE1121Z	-	-	-	-	-
14.0 - 14.9	-	-	-	-	-	GP14CB/FB

Air Conditioning - R22						
Disp. c.c.	Aspera	Copeland	L'Unite	Prestcold	ACC	Bristol
25.0 - 25.9	J2731E	-	AJ5515E	AJT12	S26UN	-
32.0 - 32.9	J7238E	-	AJ5518E	AJT15	S33UN	H25B 18Q
34.0 - 34.9	J7240E	-	AJ5519E	-	S34UN	-
37.0 - 38.0	J7245E	-	-	-	-	H25B 24Q
43.0 - 44.0	H7250E	CHC2-0200	FH5524E	-	-	H25B 30Q
49.0 - 50.0	H7257E	-	FH5527E	-	-	H25B 32Q
56.0 - 57.0	H7265E	SHK2-0250	FH5531E	-	-	H25A 35Q
74.0 - 75.0	H7283P	YHB2-0300	TFH5540E	-	-	H25A 46Q
86.0 - 87.0	-	YHC2-0350	TAG5546E	-	-	H25A 54Q
107 - 109	-	-	TAG5561E	-	-	H26A 72Q
120 - 130	C7313P	YHE4-0500	TAG5568E	CL5562E	-	-

Compressor Comparison Chart

These charts are for comparison only and do not necessarily indicate a direct replacement. It will be necessary to determine whether high or low start torque and whether fan cooling or oil cooling is required.

Medium/High Disp. c.c.	Back Pressure - R12						
	Aspera	Danfoss	Embraco	L'Unite	Necchi	Sicom	ACC
2.5 - 2.9	-	TL2.5B	-	-	-	-	-
3.0 - 3.4	A5125A	TL3B	-	-	-	-	-
3.5 - 3.9	-	TL4B	PW3.5K9	-	-	-	-
4.0 - 4.4	-	-	PW4.5K11	-	ESM4H	-	-
4.5 - 4.9	A5128A	-	-	AE6ZA7	-	AE3414A	L45PX
5.0 - 5.4	A5132A	-	-	-	ESM5H	-	-
5.5 - 5.9	A5144A	-	PW5.5K14	AE5ZA9	-	AE3417A	L57PX
6.0 - 6.4	-	FR6B	FF6BK	-	-	-	-
6.5 - 7.4	-	FR7.5B	FF7.5	-	ESM7H	-	-
7.5 - 7.9	-	-	-	AE59ZF9	-	AE3425A	L76PX
8.0 - 8.8	A5160A	FR8.5B	FF8.5	-	-	-	L88PX
8.5 - 8.9	A5170A	-	-	AE41ZF11	-	AE3430A	-
9.0 - 9.4	-	FR10B	FF10	-	ESM9H	-	-
9.5 - 10.9	-	FR11B	-	-	-	-	-
11.0 - 11.9	-	-	FF12	-	ESM11H	-	-
12.0 - 12.9	E5187A	SC12B	-	AE4440A	-	AE4440A	P12TY
13.0 - 13.9	T5185A	-	-	-	-	-	-
14.0 - 14.9	-	-	-	-	-	-	P14TY
15.0 - 15.9	-	SC15B	-	CAJ4452A	-	-	-
16.0 - 16.9	-	-	-	-	-	-	-
17.0 - 17.9	T5213A	SC18BX	-	-	-	-	-
18.0 - 18.9	-	-	-	CAJ4461A	-	-	S18TY
21.0 - 22.9	-	SC21BX	-	-	-	-	-
25.0 - 26.9	J6220A	-	-	CAJ4492A	-	-	S26TY
32.0 - 34.9	J6226A	-	-	CAJ4511A	-	-	S34TY

Medium/High Disp. c.c.	Back Pressure - R134a						
	Aspera	Danfoss	Embraco	L'Unite	Necchi	Sicom	ACC
2.5 - 2.9	-	-	-	-	-	-	-
3.0 - 3.4	BP5125Z	TL3G	EM30HNP	AZ4410Y	-	-	GD30PB/MB
3.5 - 3.9	BP5128Z	TL4G	PW3.5HK9 EM40HNP	AZ4412Y	-	-	GD36PB/MB
4.0 - 4.4	BP5132Z	-	PW4.5HK11	AZ4414Y	ETR4H	-	GL40PB/MB
4.5 - 4.9	-	-	EM50HNP	-	-	-	GL45PB/TB
5.0 - 5.4	-	TL5G	-	-	ETR5H	-	-
5.5 - 5.9	NB6144Z	-	EM60HNP	AZ34/4419Y	-	-	GL60PB/TB
6.0 - 6.4	-	FR6G	PW5.5HK14	-	-	-	-
6.5 - 7.4	-	FR7.5G	FG65HAK	-	ESR7H	-	-
7.5 - 7.9	-	-	-	AEZ34/4425Y	ESR8H	-	GL80PB/TB
8.0 - 8.8	NE6160Z	FR8.5G	FG75HAK	AEZ34/4430Y	-	-	GL90PB/TB
8.5 - 8.9	NE6170Z	-	-	-	-	AE4430YS	-
9.0 - 9.4	-	FR10G	FG85HAK	-	ESR9H	-	-
9.5 - 10.9	-	FR11G	FG95HAK	-	-	-	-
11.0 - 11.9	-	-	FF112HBK	-	ESR11H	-	-
12.0 - 12.9	NE6187Z	-	-	AE34/4440Y	-	AE4440YS	GP12TB
13.0 - 13.9	-	-	-	-	-	-	-
14.0 - 14.9	-	-	-	-	-	-	-
15.0 - 15.9	-	SC15GH	-	-	-	-	-
16.0 - 16.9	-	-	-	-	-	-	GK16TB
17.0 - 17.9	T6213Z	SC18G	-	-	-	-	-
18.0 - 18.9	-	-	-	CAJ4461Y	-	-	GK/GR18TB
21.0 - 22.9	T6215Z	-	-	CAJ4476Y	-	-	GR22TB
25.0 - 26.9	J6220Z	-	-	CAJ4492Y	-	-	GS26TB
32.0 - 34.9	J6226Z	-	-	CAJ4511Y	-	-	GS34TB

GRP Unit Housings

Virgo Condensing unit housings are designed to suit a wide range of refrigeration units. Available as standard or with foam lining to reduce noise.

Code	Model
Standard	
J330	GRP-O1
J331	GRP-1
J332	GRP-2
J333	GRP-3
J334	GRP-4
J335	GRP-5
J336	GRP-6
J337	GRP-7

Acoustic Lined	
J340	GRP-O1-AC
J341	GRP-1-AC
J342	GRP-2-AC
J343	GRP-3-AC
J344	GRP-4-AC
J345	GRP-5-AC
J346	GRP-6-AC
J347	GRP-7-AC

VIRGO



Dimensions:

Model	Length	Width	Height
GRP-O1	584 mm	584 mm	381/432 mm
GRP-1	660	762	559/609
GRP-2	838	965	686/762
GRP-3	1143	813	737/787
GRP-4	1118	1092	864/914
GRP-5	1753	965	864/914
GRP-6	1422	1092	1168/1219
GRP-7	1879	1346	1295/1371

L'Unite Unit Housings

A range of metal unit housings designed to fit L'Unite Condensing Units. They are supplied flat packed for easy transportation.

Please see table on page 123 which shows which code fits which model unit. **i.e. JN761 suits models:** CAJ/TAJ4517ZHR, CAJ/TAJ4519ZHR, FH/TFH4524ZHR, FH/TFH2480ZBR, FH/TFH2511ZBR

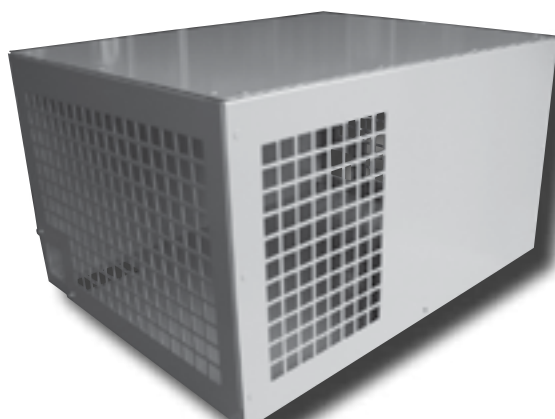
Code	Model
JN760	LUH-01
JN761	LUH-02
JN762	LUH-03
JN763	LUH-04

Dimensions:

Model	Length	Width	Height
LUH-01	500 mm	660 mm	360 mm
LUH-02	540	660	490
LUH-03	664	1009	560
LUH-04	680	1088	665



Designed to suit L'Unite
Condensing Units



Metal Unit Housings

Metal unit housings designed to suit Copeland Condensing Units.

Code To Suit Condenser

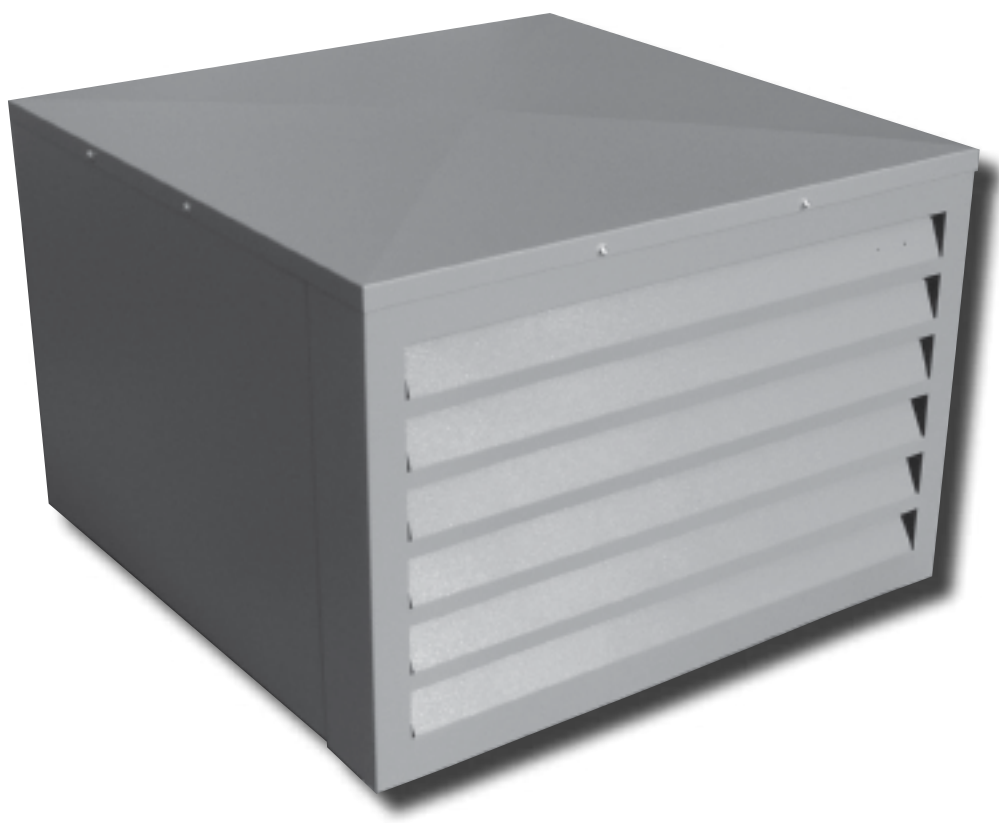
J350	B / D
J351	D / L
J352	H
J353	M
J354	F / K
J355	P / CR
J356	P / QR
J357	R / CR
J358	R / S Q / R
J359	V
J360	W / Z



Dimensions:

Model	Length	Width	Height
B / D	640 mm	610 mm	485 mm
D / L	785	610	485
H	750	785	570
M	800	785	745
F / K	710	1000	495
P / CR	710	1000	670
P / QR	810	1000	670
R / CR	890	1180	745
R / S Q / R	890	1180	745
V	890	1380	910
W / Z	890	1690	910

Designed to suit
 **Copeland**
 Scroll Condensing Units



L'Unite Hermetique Spares

Model	Fan Assemblies		Condensers
	1 Phase	3 Phase	
AEZ 9440ZMHR	JS700	-	JS720
CAE 9450ZMHR	JS700	-	JS720
CAE 9460ZMHR	JS700	-	JS721
CAE 9470ZMHR	JS701	-	JS722
CAJ 9480ZMHR	JS701	-	JS722
T/CAJ 9510ZMHR	JS701	JS707	JS723
T/CAJ 9513ZMHR	JS701	JS707	JS724
T/CAJ 4517ZHR	JS702	JS708	JS725
T/CAJ 4519ZHR	JS702	JS708	JS726
T/FH 4524ZHR	JS702	JS708	JS726
T/FH 4531ZHR	JS702	JS708	JS727
TFH 4540ZHR	JS702	JS708	JS728
TAG 4546ZHR	-	JS710	JS729
TAG 4553ZHR	-	JS710	JS729
TAG 4561ZHR	-	JS710	JS730
TAG 4568ZHR	-	JS710	JS731
TAG 4573ZHR	-	JS710	JS731
AEZ 4425YHR	JS703	-	JS732
AEZ 4430YHR	JS704	-	JS733
CAE 4440YHR	JS704	-	JS733
CAE 4448YHR	JS700	-	JS720
CAJ 4452YHR	JS700	-	JS721
CAJ 4461YHR	JS700	-	JS721
CAJ 4476YHR	JS701	-	JS722
CAJ 4492YHR	JS701	-	JS723
T/CAJ 4511YHR	JS701	JS707	JS723
T/FH 4518YHR	JS702	JS708	JS726
T/FH 4525YHR	JS702	JS708	JS726
TAG 4528YHR	-	JS709	JS734
TAG 4534YHR	-	JS708	JS735
TAG 4537YHR	-	JS708	JS727
TAG 4543YHR	-	JS708	JS728
CAE 2417ZBR	JS703	-	JS732
CAE 2420ZBR	JS704	-	JS733
CAJ 2428ZBR	JS700	-	JS720
CAJ 2432ZBR	JS700	-	JS720
T/CAJ 2446ZBR	JS701	JS707	JS722
T/CAJ 2464ZBR	JS701	JS707	JS723
T/FH 2480ZBR	JS702	JS708	JS725
T/FH 2511ZBR	JS702	JS708	JS726
TAG 2516ZBR	JS702	JS708	JS727
TAG 2522ZBR	JS702	JS708	JS728

Code Part No

1PH Fan Assemblies

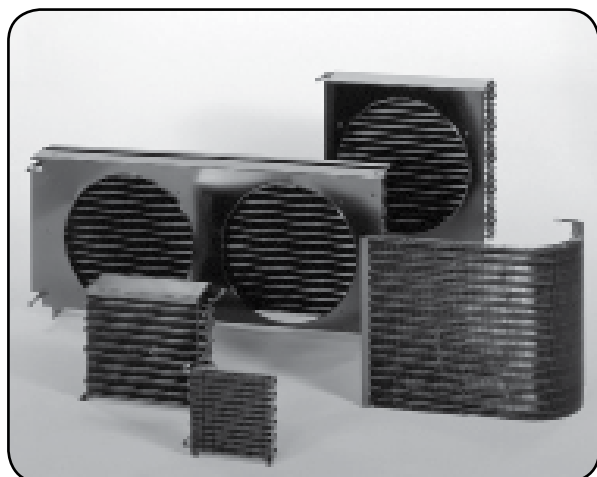
JS700	8 668 733
JS701	8 668 734
JS702	8 668 594
JS703	8 668 753
JS704	8 668 755

3PH Fan Assemblies

JS707	8 668 736
JS708	8 668 549
JS709	8 668 742
JS710	8 668 550

Condensers

JS720	8 338 208
JS721	8 338 229
JS722	8 338 219
JS723	8 338 221
JS724	8 337 240
JS725	8 337 093
JS726	8 338 093
JS727	8 337 027
JS728	8 337 028
JS729	8 337 029
JS730	8 337 104
JS731	8 337 030
JS732	8 338 202
JS733	8 338 205
JS734	8 337 096
JS735	8 337 097



Supco Open Wound Fan Motor Kit

CW or CCW rotation.
Multi fit break off mounting bracket.
Break off motor shaft to required length.
Mounting accessories included.

Code	Model	Speed
K030	SM-998	3000 rpm



Open Wound Fan Motors

These open wound fan motors can have their rotation changed by reversing the stack.

Code	Model	Output
K098	E1.5A	1.5 watt
K099	E2A	2
K295	24-2-3AP	2 watt
K296	24-2-3CO	2
K297	24-2-3CB	2



Brackets

Code	Type
K119	MB-OW Bracket



Fan Blades

Code	Diameter
K127	MVH- 96 mm Blade
K128	MVH-130 mm
K129	MVH-154 mm



Selection Table:

The following table is for guidance only and does not necessarily indicate a direct replacement.

Model	Blade	Bracket	To Suit
E1.5A	K127 / K128	MB-OW	-
E2A	K128 / K129	MB-OW	-
24-2-3AP	-	-	Proline/Comet
24-2-3CO	-	-	Ocean/Candy
24-2-3CB	-	-	Bejam/Zanussi

Universal Fan Motor

Base and Rear Mounting.
Threaded Shaft.

Code	Model	Watts	Rotation
K060	GA27R	7	CCW



Tangential Fan Assembly

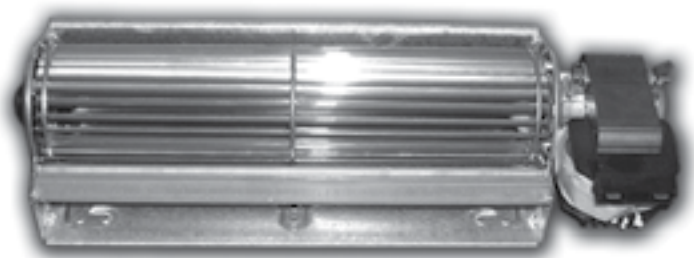
Code **Model**

Single Fan

K150	ETD 6090.15
K151	ETD 60120.15
K152	ETD 60180.20
K153	ETD 60240.30
K154	ETD 60300.30

Double Fan

K155	ETC 6090.20
K156	ETC 60120.20
K157	ETC 60180.30
K158	ETC 60240.30
K159	ETC 60300.35



Code	Model	Length	Air off Duct
K150	ETD 6090.15	150 mm	35 mm x 98 mm
K151	ETD 60120.15	180 mm	35 mm x 128 mm
K152	ETD 60180.20	242 mm	35 mm x 185 mm
K153	ETD 60240.30	315 mm	35 mm x 248 mm
K154	ETD 60300.30	375 mm	35 mm x 308 mm

Code	Model	Length	Air off Duct
K155	ETC 6090.20	287 mm	2 x 35 mm x 100 mm
K156	ETC 60120.20	347 mm	2 x 35 mm x 130 mm
K157	ETC 60180.30	467 mm	2 x 35 mm x 190 mm
K158	ETC 60240.30	587 mm	2 x 35 mm x 250 mm
K159	ETC 60300.35	707 mm	2 x 35 mm x 310 mm

ebm Multi-Fit Fan Motors

Fan motor - CCW rotation with multiple choices for mounting.
 3 tapped holes in the front
 3 tapped holes in the rear
 Base bracket 18mm or 26mm centres
 4 corner bolts to enable mounting in a ring

ebmpapst

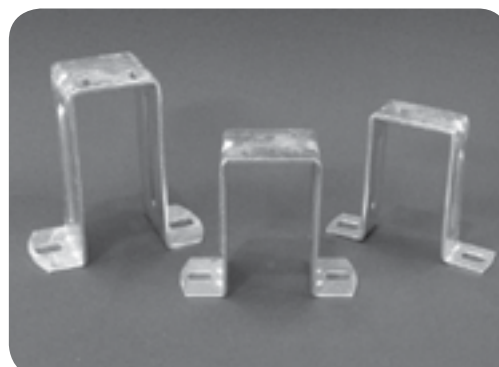
Code	Model	Wattage
K400	BD01-5	5
K401	CA01-75	7
K402	CA03-10	10
K403	CF01-75	16
K404	DA01-18	18
K405	EA01-25	25
K406	EF01-34	34



Mounting Brackets

Select the correct bracket and blade combination from the table on the next page.

Code	Type	Height mm
K480	71882	52mm-1
K481	71883	72mm-1
K482	71884	84mm-1
K483	71885	84mm-2
K485	71887	109mm-3



Motor Ring Assemblies

We offer a few common models already made up
 If you require any other combination please select from the Individual components

Code	Type	Wattage	Blade Dia. mm
K430	5W-154	5	154
K431	5W-172	5	172
K432	7W-200	7	200
K433	10W-254	10	254
K434	16W-254	16	254



Mounting Rings

Mounting ring to suit the ebm motors
 Order Motor, Blade and Ring separately
 Please select correct combination from the table on the next page

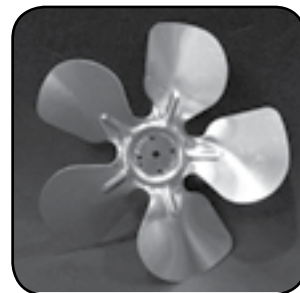
Code	Type	Blade Dia. mm
K470	Ring-154	154
K471	Ring-172	172
K472	Ring-200	200
K473	Ring-230	230
K474	Ring-254	254
K475	Ring-300	300



Fan Blades

One-piece aluminium fan blades to suit most types of motor
 For condenser application (air over blade then over motor) use
 a clockwise (CW) blade with a counter-clockwise motor (CCW)
 Check the correct motor and blade combination from the table below

Code	Type	Blade Dia. mm
K440	CW Blade 154/28°	154
K441	CW Blade 154/34°	154
K442	CW Blade 172/28°	172
K443	CW Blade 172/34°	172
K444	CW Blade 200/28°	200
K445	CW Blade 200/34°	200
K446	CW Blade 230/28°	230
K447	CW Blade 230/34°	230
K448	CW Blade 254/28°	254
K449	CW Blade 254/34°	254
K450	CW Blade 300/28°	300
K451	CW Blade 300/34°	300
K453	CCW Blade 154/28°	154
K454	CCW Blade 172/28°	172
K455	CCW Blade 200/28°	200
K456	CCW Blade 200/34°	200
K457	CCW Blade 254/28°	254
K458	CCW Blade 254/34°	254
K459	CCW Blade 300/28°	300
K460	CCW Blade 300/34°	300



Blade and Bracket Selection Chart

Motor	Maximum Blade	Bracket
5 watt	172 mm 34°	71882
5 watt	200 mm 28°	71883
10 watt	230 mm 34°	71883
16 watt	254 mm 28°	71884
18 watt	254 mm 34°	71885
25 watt	300 mm 28°	71887
34 watt	300 mm 34°	71887

Fan Assemblies

Code	Diameter	CFM
K190	80 x 80 x 38 mm	25/30
K191	120 x 120 x 25 mm	64/77
K192	120 x 120 x 38 mm	85/105

Square Fan Guards

K194	PB-08-80 mm- plastic
K195	FG-08-metal
K197	PB-12-120 mm-plastic
K198	FG-12-metal

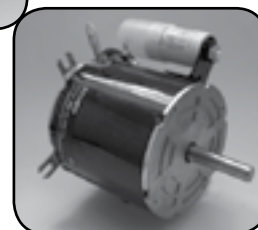
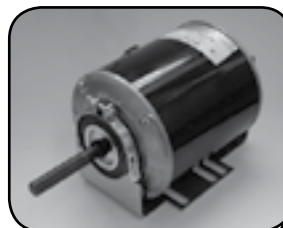


Remco Electric Motors

Code	Model	Output	Rotation	Shaft	**
K300	33-4-5AF-BKT18	5 watt	CCW	Threaded	A
K301	33-4-5CF-BKT18	5	CW	Threaded	A
K302	33-4-7AF-BKT18	7	CCW	Threaded	A
K303	33-4-7CF-BKT18	7	CW	Threaded	A
K310	33-2-7A1	7	CCW	0.25"	B
K315	33-4-12AF	12	CCW	Threaded	C
K316	33-4-12CF	12	CW	Threaded	C
K318	33-4-15A1	15	CCW	0.31"	B
K322	33-4-18AFL	18	CCW	Threaded	C
K323	33-4-18CFL	18	CW	Threaded	C
K326	33-4-18A	18	CCW	0.31"	D
K328	33-4-25A3	25	CCW	0.31"	D
K329	33-2-33RF	33	REV	Threaded	C
K330	33-2-35A	35	CCW	0.31"	C
K331	35-2-75AB	75	CCW	0.31"	J
K332	35-4-70AL	70	CCW	12mm	L
K338	48-4-85CM	85	CW	10mm	G
K339	48-4-90AG	90	CCW	0.50"	I
K341	48-4-90AR	90	CCW	0.50"	E
K343	48-4-90AR-3P	90-3PH	CCW	0.50"	E
K344	48-4-90-AB-FT	90	CCW	0.05"	H
K350	48-4-125A	125	CCW	0.50"	F
K351	48-4-125-3P	125-3PH	REV	0.50"	F
K354	48-6-180AB	180	CCW	0.50"	K
K355	48-6-180-3PB	180-3PH	CCW	0.50"	K
K360	60-4-180RB1P/R	180	REV	0.63"	E
K361	60-4-180RB3P/R	180-3PH	REV	0.63"	E
K362	63-4-200AB	200	REV	12mm	H
K363	63-4-2003PB	200-3PH	REV	12mm	H
K365	60-4-250RB1P/R	250	REV	0.63"	E
K366	55-4-250RB3P/R	250-3PH	REV	0.63"	E
K375	60-4-370RIP/R	370	REV	0.50"	E
K377	60-4-550RB1P/R	550	REV	0.63"	E
K378	55-4-550RB3P/R	550-3PH	REV	0.63"	E
K379	60-6-550RB3P/R	550-3PH	REV	0.63"	E

** Mountings:

A	3 Rear fixings on 2.81" PCD 2 Pin base mounting
B	2 M4 extended bolts 0.50" long on 2.84" PCD rear
C	3 Rear fixings on 2.81" PCD
D	3 Rear and 3 front fixings on 2.81" PCD
E	Cradle and 4 mounting pads (Spider)
F	Cradle
G	Spider (to suit Maneurop)
H	Foot mounting
I	3 Rear fixings on 113.4mm PCD
J	4 Rear and 4 front fixings on 67.5mm PCD
K	Clamp in fan guard
L	4 Lugs or rear of motor



Shaft Sleeves

To convert plain shafts up to next diameter.

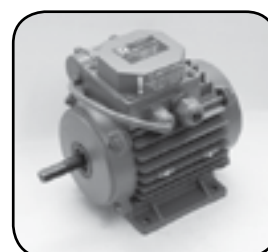
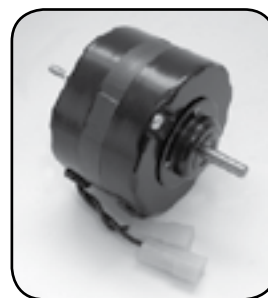
Code	Type	Size
K390	SS 45	1/4 to 5/16
K391	SS 56	5/16 to 3/8
K392	SS 68	3/8 to 1/2
K393	SS810	1/2 to 5/8



Fan Motor and Blade Selection

Searle		Motor	Blade
ECL 45/65	1PH/3PH	K341/K343	K253
ECL 85	1PH/3PH	K341/K343	K252
ECL 120	1PH/3PH	K341/K343	K254
ECL 180	1PH/3PH	K360/K361	K256
ECL 240	1PH/3PH	K365/K366	K258
ECL 360/720	1PH/3PH	K377/K378	K259
K 45/120	1PH	K341	K251
K 45/120	3PH	K343	K251
K180/360	1PH	K365	K255
K180/360	3PH	K366	K255
KM	1PH	K362	-
KM	3PH	K363	-
SR Mark One (Screwed)		K322	-
SR Mark Two (Plain)		K326	-
SU		K310	K218
T1, J1 and J2		K310	K218
T2-T6, J3 and J4		K318	K219
UCL		K330	K220
KS 10/15/20/25		K332	
BC All Models		K332	
DSR100		K332	
DSR116		K332	
Refrigeration Appliances			
LLC 65/LLF55 (Large Body)		-	K222
LL4C66/LL4F60 (Large Body)		-	K222
All other LLC/LLF (Small Body)		K331	K221
Prestcold			
25 watt (54713-201)		K328	-
AS100/150	1PH	K350	-
AS100/150	3PH	K351	-
AS375/ASR1500	3PH	K379	-
27131/0134	1PH	K354	-
27130/0122	3PH	K355	-
Maneurop			
Y, A & B Condensers		K338	-
Contardo			
G90	1PH	K339	-
Foster			
High Speed Motor	1PH	K329	-

Please note that the above table is for guidance only and does not necessarily indicate a direct replacement.



External Rotor Motors

Listed below are a few of the models available from ebm and ZIEL.
These motors are fitted to some Airedale, Denco, Hubbard and Searle
equipment as well as many other products.

ebmpapst



Code	Model	Blade Dia. mm	Speed	Supply
Ebm Axial Motor Set				
K500	A2E 200-AF02-01	200	2 pole	1ph
K501	A4S 250-AI02-01	250	4 pole	1ph
K502	A2E 250-AE65-01	250	2 pole	1ph
K503	A2E 250-AE65-02	250	2 pole	1ph
K504	A2D 250-AA02-25	250	2 pole	3ph
K505	A2E 300-AC47-01	300	2 pole	1ph
K506	A4E 315-AP18-02	315	4 pole	1ph
K507	A4E 330-AB18-09	330	4 pole	1ph
K508	A4E 350-AA06-01	330	4 pole	1ph

Elco Axial Motor Set				
K180	3CFR 60-2-4-300-28	300	4 pole	1ph
K182	3CFR 90-30-4-350-0/14	350	4 pole	1ph
K183	3CFR120-40-4-400-22-0/12	400	4 pole	1ph

Ebm Axial Motor – Guard Mount				
K510	S4S 200-BI04-01	200	4 pole	1ph
K512	S2E 300-BA01-02	300	2 pole	1ph
K513	S4E 300-BA01-02	300	4 pole	1ph
K514	S4E 315-BP18-31	315	4 pole	1ph
K515	S4E 350-AF20-01	350	4 pole	1ph
K516	S4E 360-EC20-05	360	4 pole	1ph
K517	S4D 400-AP12-40	400	4 pole	3ph
K519	S4E 400-AP02-48	400	4 pole	1ph
K520	S6E 400-AP10-34	400	6 pole	1ph

ZIEHL Axial Motor – Guard Mount				
K525	FB 050-4EK101634	500	4 pole	1ph
K526	FB 050-4EK121993	500	4 pole	1ph
K527	FB 061-6EK207244	610	6 pole	1ph
K528	FB 063-6EK101680	630	6 pole	1ph
K529	FB 063-6EK108261	630	6 pole	1ph
K530	FB 063-8EK101689	630	8 pole	1ph
K531	FB 063-8EK108262	630	8 pole	1ph
K532	FB 063-ADK108265	630	8 pole	3ph
K533	FB 063-ADK120237	630	8 pole	3ph
K534	FB 063-CEK108263	630	12 pole	3ph
K535	FB 063-NDK108266	630	12 pole	3ph
K536	FB 063-NDK120238	630	12 pole	3ph
K537	FB 063-SDK120236	630	6 pole	3ph
K538	FB 063-SDK120461	630	6 pole	3ph



Fan Blades

Code Diameter

Clockwise Fan Blade, with Hub

K218	5-1/2	-4B-32-CW-RH-1/4
K219	9	-5B-31-CW-RH-8mm
K220	10	-5B-12-CW-RH-8mm
K221	10	-4B-24-CW-FH-8mm
K222	10	-4B-36-CW-FH-12mm
K223	12	-4B-31-CW-RH-8mm
K224	12	-4B-31-CW-FH-1/2
K225	14	-4B-31-CW-FH-1/2
K226	15	-4B-31-CW-FH-1/2
K227	15	-4B-31-CW-FH-5/8
K228	16	-4B-31-CW-FH-5/8
K229	18	-4B-31-CW-FH-5/8



Counter Clockwise Fan Blade, with Hub

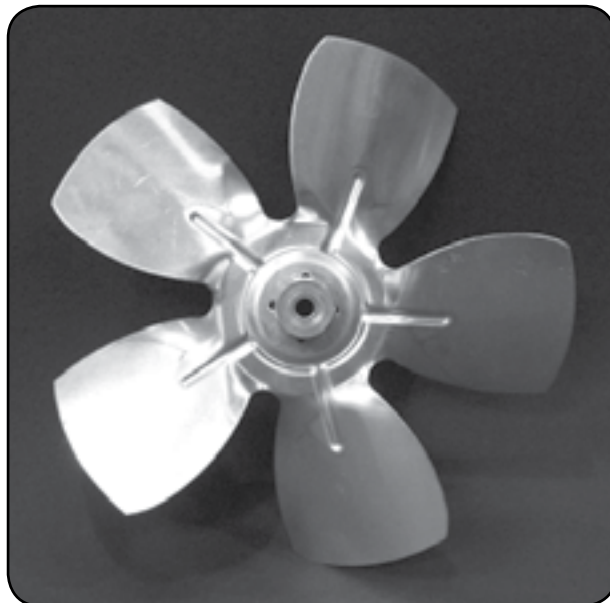
K250	12	-4B-31-CCW-RH-8mm
K251	12	-4B-36-CCW-FH-1/2
K252	12	-4B-32-CCW-RH-1/2
K253	12	-4B-40-CCW-RH-1/2
K254	14	-4B-24-CCW-RH-1/2
K255	15	-4B-40-CCW-RH-5/8
K256	15	-4B-32-CCW-RH-5/8
K257	16	-4B-32-CCW-RH-5/8
K258	18	-4B-24-CCW-RH-5/8
K259	22	-4B-16-CCW-RH-5/8



Centre Pierced: - To suit threaded shaft fan motors.

Hub : - To suit plain shaft fan motors.

Code Explanation: Taking K259 as an example, 22 = Diameter of Blade in inches, 4B = Four Blade, 16 = Pitch of Blades in Degrees, CCW = Counter Clockwise Rotation, RH = Rear Hub, 5/8 = Hub Bore.



Airflow Explained!

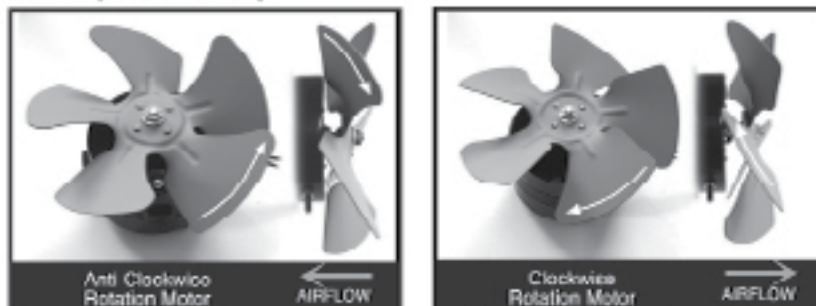
On this page we have attempted to demonstrate how the direction of air flow created by a fan may be changed by the manner in which it is fitted to a motor shaft.

Remember, fans are normally described as being Clockwise or Anti-clockwise. The easy way to tell which rotation fan you have is to lay it on a flat surface with one blade approximately at 12 o'clock. If the **right** hand edge of that blade is touching the table, then it is a **Clockwise** fan. If the **left** hand edge of the fan touches the table, then it is an **Anti-clockwise** fan. Turning the fan over makes no difference to which edge touches the table.

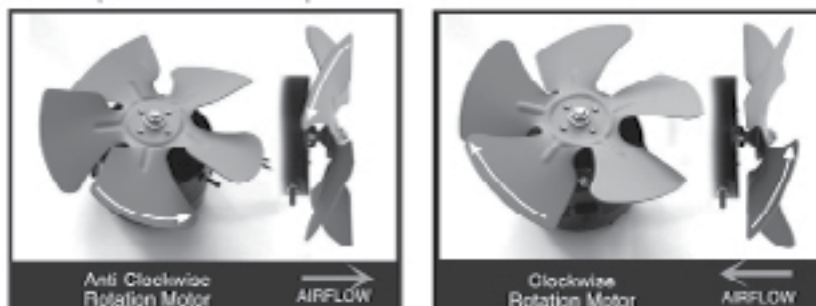
For one piece fans we show below four illustrations showing the air flow direction for both clockwise and anti-clockwise fans fitted to motors both with clockwise and anti-clockwise rotation, looking on the shaft end.

Remember also that a fan runs correctly when the **concave** sides of the fan blades are facing the direction of rotation.

One Piece 5 Bladed fans with Hubless Fan Drives for use on small refrigeration motors. (Clockwise Fan.)



One Piece 5 Bladed fans with Hubless Fan Drives for use on small refrigeration motors. (Anti-Clockwise Fan.)



Below we show the same relationships, but for bladed fans with hubs. Here, when describing a fan requirement, it is useful also to add whether the fan is fixed to the motor shaft with the fan hub to the front, i.e. on the opposite side of the fan to the motor, or with the fan hub to the rear, i.e. on the same side of the fan as the motor. The same rules for clockwise and anti-clockwise fans apply as above.

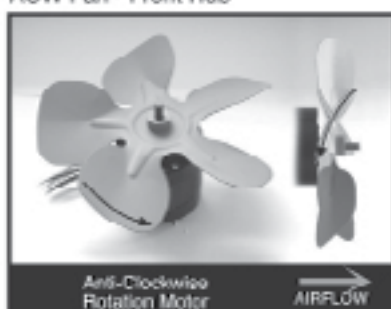
CW Fan - Rear Hub



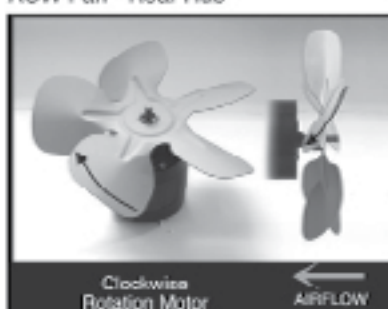
CW Fan - Front Hub



ACW Fan - Front Hub



ACW Fan - Rear Hub



Grasslin Time Switch

Code	Model	Operation
L020	IHT-GPT01	STUZH 24 hour Dial Change over contacts. Switchable every 15 minutes.
L021	SBSTUZH0	Socket Box Timer 24 hour Dial Multiple programme slots Switchable every 15 Minutes.
L022	TACTIC 111.1	Surface Flush and Din Rail Mounted Universal Time Switch. 24 Hour Dial 16A/250V Switchable every 15 Minutes



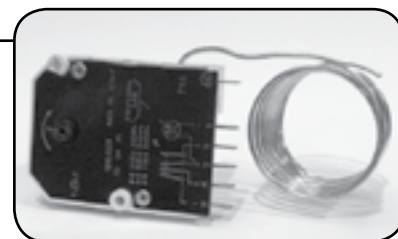
Eliwell Time Switches

Code	Model	Operation
L024	EWDR 72	One to Ten defrosts per day Defrost termination by time – Adjustable 1.1/2 -12 hours 230 volt a.c.



Ranco Defrost Controls

Code	Model	Defrosts/day	Capillary
L027	T24-6003	4 x 20 min.	Straight
L028	T24-6007	4 x 20 min.	X Amb Bulb
L029	T24-6008	6 x 15 min.	Straight
L035	T25-5002	4 x 25 min.	No Capillary



Supco Adjustable Timer

Adjustable defrost duration: 10, 15, 20, 25, 30 or 35 minutes.

Can be set to defrost every: 4, 6, 8, 10 or 12 hours.

Code	Model	Operation
L038	EDT20 Timer	Fully Adjustable



Electronic Controllers

Code	Model
L155	Universal R Dixell Controller
L210	CDC 12 LAE Controller c/w Two Probes (old model)
L211	CDC 121T1RO LAE Controller c/w One Probe (old model)
L214	AT25BS4D-G Controller c/w Two Probes (new model to replace L210)
L213	AT1-5BS2D-AG Controller c/w One Probe (new model to replace L211)



Eliwell Controllers

Front dimensions: 74mm x 32mm – Cut out: 71mm x 29mm
Models available for 12 volt DC/AC supply or 230 volt 50Hz
The controls are supplied for use with PTC probes but they can be altered to work with NTC probes within the parameters.

eliwell

Please order probes separately.

Code	Model	
L590	IC 901	Thermostat/ Thermometer Range -50°C to +99°C Compressor Relay 1 x PTC Probe Required 12 volt supply
L591	IC901/230v	Thermostat/ Thermometer Range -50°C to +99°C Compressor Relay 1 x PTC Probe Required 230 volt supply
L592	IC 902	Thermostat/ Thermometer Range -9.9°C to +99.9°C Compressor Relay 1 x PTC Probe Required 12 volt supply
L594	IC 915	Thermostat/ Thermometer Range -50°C to +140°C Compressor Relay 1 x PTC Probe Required 12 volt supply



Probes and Accessories

To suit all IC, ID & IS Models

Code	Model	Type
L620	PTC-1.5M	PTC 6x40 1.5M Silicone Probe
L622	PTC-3.0M	PTC 6x40 3M Silicone Probe
L624	NTC-1.5M	NTC 6x40 1.5M Silicone Probe
L626	NTC-3M	NTC 6x40 3M Silicone Probe
L628	PTC-1.5M	PTC 6x30 1.5M PVC Probe
L640	TR230/12	Transformer 230/12 3Va
L644	EW -1	Wall Box to suit a single 74mm x 32mm control



Eliwell Digifrost Controllers

Front dimensions: 74mm x 32mm – Cut out: 71mm x 29mm
 Models available for 12 volt DC/AC supply or 230 volt 50Hz
 The controls are supplied for use with PTC probes but they can be altered to work with NTC probes within the parameters.

eliwell

Please order probes separately.

Code	Model	
L602	ID 961/A	Digifrost Controller Range -50°C to +99°C Compressor Relay Alarm 1 x PTC Probe Required 12 volt supply
L603	ID Plus 961	Digifrost Controller Range -50°C to +99°C Compressor Relay Alarm 1 x PTC Probe Required 230 volt supply
L610	ID Plus 971	Digifrost Controller Range -50°C to +99°C Compressor Relay Defrost Relay 2 x PTC Probes Required 12 volt supply
L611	ID971/230v	Digifrost Controller Range -50°C to +99°C Compressor Relay Defrost Relay 2 x PTC Probes Required 230 volt supply
L614	ID974	Digifrost Controller Range -50°C to +99°C Compressor Relay Defrost Relay Fan Relay 2 x PTC Probes Required 12 volt supply
L615	ID Plus974	Digifrost Controller Range -50°C to +99°C Compressor Relay Defrost Relay Fan Relay 2 x PTC Probes Required 230 volt supply



Eliwell Digifrost Controllers

Front dimensions: 74mm x 32mm – Cut out: 71mm x 29mm

The controls are supplied for use with PTC probes but they can be altered to work with NTC probes within the parameters.

Please order probes and slave module separately.

Code	Model	
L616	IS972LX	Digifrost Controller Range -50°C to +50°C 2 x PTC Probes Required 3 x Outputs Use EWEM 233 Slave Module



L617	IS974LX	Digifrost Controller Range -50°C to +50°C 2 x PTC Probes Required 4 x Outputs Use EWEM 243 Slave Module
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L618	EWEM233	Slave Module for IS972 16 amp Compressor Relay 8 amp Defrost Relay 8 amp Fan Relay 230 volt supply
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L619	EWEM243	Slave Module for IS974 16 amp Compressor Relay 8 amp Defrost Relay 8 amp Fan Relay Alarm Relay 230 volt supply
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L632	Cable	1.0M - IS972/4 to EWEM
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L633	Cable	2.0M - IS972/4 to EWEM
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Please note that there is a wide and varied range of Eliwell Controls

available to order - If you do not see the item that you require

in our catalogue please do not hesitate to contact our sales office

on 01752 894777 where one of our sales team will be only to pleased to assist you.

eliwell

Eliwell Mini Control Panel

The EWPC 1000 is a microprocessor based digital controller specifically designed for refrigeration systems. Six relay outputs for compressor, defrost, fans, cabinet light, remote alarm output and on off switch.

Panel mounting: Front 216 x 72 mm, Depth 100 mm.

Surface mounting: Front 211 x 178 mm, Depth 80 mm.

Features:

- * Measurement and display of temperature.
- * Temperature control.
- * Defrost cycle management.
- * High and low temperature alarm.
- * Auxiliary outputs for light and fans.
- * Compressor contacts rated 15 amp inductive load.
- * Defrost contacts rated at 10 amp resistive load.



Code Model

Panel Mounting

L208 EWPC 1000 Controller

Surface Mounting

L209 EWTB 1000 Controller



Thermomax Control Panel

The Coltrex RCX100 microprocessor based system with two fully sealed plug-in PT100 platinum film sensor uses modern technology to ensure that the coldroom is controlled and monitored with the greatest of ease. The RCX 100 may be connected directly to single phase loads of up to 13 A, and may be used in conjunction with contactors in larger or three phase installations.

Dimensions: Height 160 mm, Width 165 mm, Depth 75 mm

Features:

- * Digital display of room and evaporator temperature.
- * Cold room thermostat adjustable in 1 °C steps with adjustable differential.
- * Compressor switching limited for short-cycling prevention.
- * Fan enable thermostat.
- * Fully programmable defrost with adjustable duration, termination temperature and dwell period.
- * Manual defrost activation and override.



Code Model

L220 RCX-100 Control Panel c/w RCX Probes

L222 SX 5M Cable and Sensor to suit RCX-100

Carel MasterCella Control Panel

The MD33D2EN00 (supersedes MTC D 200100) is a microprocessor based digital controller specifically designed for refrigeration systems. With a protection rating of IP65 the panel can be installed in high moisture areas. The case can be directly mounted onto a wall on the front of the cold room, while wiring is made simple by the significant space available inside, inserting the wires from either below or above. Dimensions: Width 200 mm, Height 240 mm, Depth 87 mm.

Relay Outputs:

Compressor 30A	Output	Max. running current = 10A 250Vac
Defrost	16A	Resistive 250Vac
Fans	8A	Resistive 250Vac
Lights	16A	Resistive 250Vac
Alarm	2A	Resistive 250Vac

Two Probes are required one for room control and the other for defrost control. Probes are available in three lengths to aid installation.

Please order probes separately.

Code	Model
L215	MD33D2EN00 Control Panel

Probes to Suit Panel

L216	1.5 M Probe
L217	3.0 M Probe
L218	6.0 M Probe



Universal Relays

- | Code | Model |
|-------------|---|
| L100 | ICG Universal Relay
One size for all compressors from 1/12 to 1/2 HP.
This solid state device will replace most relays.
Easy to install, clip on or screw on.
Can be used with or without a start capacitor. |
| L101 | PO-230 Universal Push on Relay
One size for all compressors from 1/12 to 1/2 HP.
This solid state device will replace most relays.
Easy to install, pushes directly onto compressor terminals.
Can be used with or without a start capacitor. |
| L103 | PR-90 Universal Potential Relay
Replaces all potential starting relays for compressors up to 5 HP.
Any voltage between 110 and 270 volt a.c.
Replaces thousands of O.E.M. models.
Reduces van stock.
Universal fixing bracket.
Screw on or push on terminals. |



Universal Relay and Overload

Four models available to suit compressors from 1/8 to 1/2 HP. Can be used with or without a start capacitor. Pre-wired for fast, simple installation. Complete with mounting clip.

Code	Model
L105	R082 1/8 HP Relay and Overload
L106	R062 1/6 - 1/5 HP
L107	R042 1/4 - 1/3 HP
L108	R022 1/2 HP



Start Capacitors

Start Capacitor 275v RMS - 50 Hz.
Tolerance: +25%.

Code	Rating
L115	40 mfd Start Capacitor
L116	60 mfd
L117	80 mfd
L118	100 mfd
L119	125 mfd
L120	160 mfd
L121	180 mfd

If two capacitors are connected in parallel the total capacitance is the sum of their values.



Run Capacitors

Run Capacitor 440v RMS – 50 Hz.
Tolerance: +/- 10%

Code	Rating
L123	3 mfd Run Capacitor
L124	5 mfd
L125	10 mfd
L126	15 mfd
L127	20 mfd
L128	30 mfd

If two capacitors are connected in parallel the total capacitance is the sum of their values.



Door Switch

Code	Model
L077	AT11-1-i Double Pole M/B
L078	Roller Kit

MOELLER



Moeller Contactors

Code	Model	Rating
L045	DIL M9-10	20/16 amp 4 n.o
L046	DIL M9-10/DILM32XH111	20/16 amp 4 n.o/1n.c
L047	DIL M17/DILM32XH111	35/30 amp 4 n.o/1n.c

Enclosures

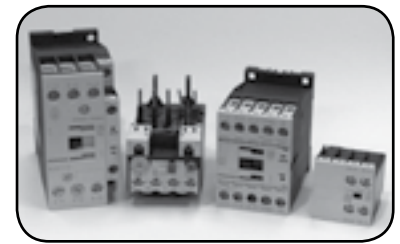
L051	CiB	DIL M9
L052	CiD	DIL M17

Overloads

L060	ZB12-4	2.4	to	4 amp
L061	ZB12-6	4	to	6 amp
L062	ZB12-10	6	to	10 amp
L063	ZB32-16	10	to	16 amp
L064	ZB32-24	16	to	24 amp

High Performance Contactors

L800-L820 From 9A to 32 amp



Danfoss Contactors

Code	Model	Rating
L260	CI 9-3 pole	9 amp
L261	CI 9-4 pole	9 amp
L262	CI 12-3 pole	12 amp
L263	CI 12-4 pole	12amp
L264	CI 16-3 pole	16 amp
L265	CI 16-4 pole	16 amp
L266	CI 20-3 pole	20 amp
L267	CI 25-3 pole	25 amp
L268	CI 30-3 pole	30 amp

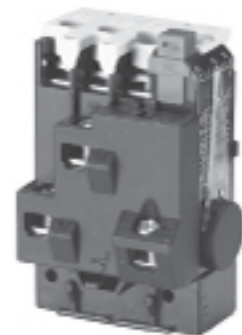


Auxiliary Contacts

L272	CB-NO	Normally Open
L273	CB-NC	Normally Closed

Thermal Overloads

L276	T1 16C	1.8 - 2.8	1.8 - 2.8 amp
L277	T1 16C	2.7 - 4.2	2.7 - 4.2 amp
L278	T1 16C	4.0 - 6.2	4.0 - 6.2 amp
L279	T1 16C	6.0 - 9.2	6.0 - 9.2 amp
L280	T1 16C	8.0 - 12	8.0 - 12 amp
L281	T1 16C	11 - 16	11 - 16 amp



Delay Timers

L284	ETB 0.5 - 20 Sec	24 to 65 v.a.c.
L285	ETB 4 -160 Sec	24 to 65 v.a.c.
L286	ETB 0.5 - 20 Sec	110 to 240 v.a.c.
L287	ETB 4 -160 Sec	110 to 240 v.a.c.

Enclosures

L290	BCI	Plain
L291	BCI 1	Stop Button
L292	BCI 2	Stop/Start Button



Isolators

Code
L365

Type
20amp Isolator
Three Pole and Neutral.
Rated at 20 amps.
Lockable Enclosures to IP65.



CLIPSAL

L366

35 amp Isolator
Three Pole and Neutral.
Rated at 35 amps.
Lockable Enclosures to IP65.



L370

TO-2-8900/L1/SVB Isolator
Four Pole and Neutral.
Rated at 20 amps.
Lockable Enclosures to IP65.



MOELLER

L367

GW70433 Isolator
Four Pole and Neutral.
Rated at 16 amps.
Lockable Enclosures to IP65.



L368

GW70436 Isolator
Four Pole and Neutral.
Rated at 32 amps.
Lockable Enclosures to IP65.



GEWISS

L369

Switched Fused Spur with Neon
Rated at 13 amps



L371

SMC531 Isolator
Double Pole Metalclad Switch c/w Neon
Rated at 20 amps.



L372

S924 Isolator
Plastic Switched Fused Spur c/w Neon
Rated at 13 amps.



L373

S901 Pattress
White Plastic Pattress
35 mm deep.

CLIPSAL

GEWISS

MOELLER

Electrical Accessories

Code	Type		
L325	BHL-1 Bulk Head Light		
L328	Black PVC Tape 3/4"		
L329	Black PVC Tape 1"		
L330	Black PVC Tape 2"		
L318	Earth Pattern Insulation Tape		
L319	White PVC Tape		
L320	Green PVC Tape		
L321	Red PVC Tape		
L322	Yellow PVC Tape		
L324	Blue PVC Tape		
L326	8 piece multi coloured pack of assorted PVC Tape		
L316	Gland Pack 20S	to suit 1.5 mm and 2.5 mm	
L317	Gland Pack 20BW	to suit 4.5 mm	
L332	5 amp Strip Connector		
L333	15 amp		
L334	30 amp		
L337	13 amp White Nylon Plug		
L338	13 amp Black Rubber Plug		
L355	13 amp Fuses (Pack of ten)		
L340	160 x 4.8 mm Cable Ties (pkt 100)		
L341	200 x 4.8 mm		
L342	300 x 4.8 mm		
L344	370 x 7.8 mm		
L345	Adhesive Tie Anchors (pkt 100) Also suitable for screw mounting		
L346	Cable Tie Anchors (pkt 100) Screw mounting		
L405	CTFB9 Black Cable tie Anchor Wall Plug (pkt 100)		
L350	Junction Box 20 Amp	Four Way	
L351	Junction Box 20 Amp	Six Way	
L352	Junction Box 30 Amp	Three Way	
L357	Henshel 88mm x 88mm x 53mm High Adaptable Boxes IP65		
L358	Henshel 98mm x 98mm x 61mm		
L359	Henshel 167mm x 125mm x 82mm *		
	* Includes removable 30 amp rated terminal blocks in two smaller models. The largest is supplied without a plug In terminal strip. Remove terminal block, simply unplug to wire, then plug back in when finished.		
L400	ARB17-GALV	Galvanised Fixing Band	10M Roll x 17mm wide
L402	ARB17-BLK	Black PVC Fixing Band	10M Roll x 17mm wide
L404	ARB17-SS	Stainless Steel Fixing Band	10M Roll x 17mm wide



Heat Shrink

Pack of four colours.

Code	Type	Diameter
L410	SP 6	6 mm
L412	SP 12	12 mm
L414	SP 25	25 mm

Assorted Pack

L415 95 piece Draper Assorted Pack



Flexible Conduit Kit

10 metres of 20 mm Flexible Conduit c/w 10 x 20mm glands with locknuts.

Code	Type
L378	FX-15N Conduit Kit



Cable Glands

Pack of ten Cable Glands complete with locknuts.

Code	Type	Size
Black Skin Tops		
L420	20 mm	6 - 12 mm
L422	20 mm	10 - 14 mm

White Skin Tops		
L394	20 mm	6 - 12 mm



Plastic Trunking

Plastic Trunking supplied in 3M Lengths.

Code	Type	Size
L380	CMT-2	25 mm x 16 mm
L382	CMXT-22	50 mm x 50 mm
L383	CMXT-32	75 mm x 50 mm
L384	SPF1 Mini Stick on type	16 mm x 16 mm
L385	SPF2 Mini Stick on type	25 mm x 16 mm
L386	YT-1 Mini	16 mm x 16 mm
L388	YT-2 Mini	25 mm x 16 mm
L389	Micro Stick on Type	10 mm x 16 mm
L390	3M length White	3" x 3"
L392	White End Caps for 3" x 3" Trunking	



Electric Cable

Code Type

White Flex

L749	1 metre x 0.75 mm sq. 2 Core
L750	1 metre x 0.75 mm sq. 3 Core
L751	1 metre x 1.50 mm sq. 3 Core
L752	1 metre x 2.50 mm sq. 3 Core



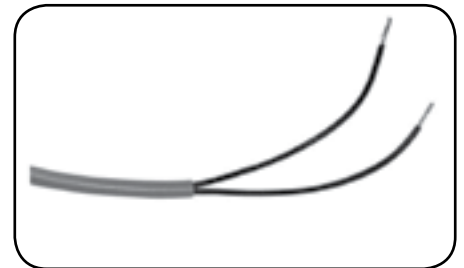
Black Flex

L755	1 metre x 0.75 mm sq. 2 Core
L756	1 metre x 0.75 mm sq. 3 Core
L753	1 metre x 1.50 mm sq. 3 Core
L754	1 metre x 2.50 mm sq. 3 Core



YY Non Screened Multicore Flex (Grey)

L699	1 metre x 0.75 mm sq. 2 Core
L700	1 metre x 1.00 mm sq. 2 Core
L701	1 metre x 1.50 mm sq. 2 Core
L702	1 metre x 2.50 mm sq. 2 Core
L703	1 metre x 0.75 mm sq. 3 Core
L704	1 metre x 1.00 mm sq. 3 Core
L705	1 metre x 1.50 mm sq. 3 Core
L706	1 metre x 2.50 mm sq. 3 Core
L707	1 metre x 0.75 mm sq. 4 Core
L708	1 metre x 1.00 mm sq. 4 Core
L709	1 metre x 1.50 mm sq. 4 Core
L710	1 metre x 2.50 mm sq. 4 Core



SY (Grey Flex with Outer Braid and Clear PVC Coating)

L698	1 metre x 0.75 mm sq. 2 Core
L711	1 metre x 1.00 mm sq. 2 Core
L712	1 metre x 1.50 mm sq. 2 Core
L713	1 metre x 0.75 mm sq. 3 Core
L714	1 metre x 1.00 mm sq. 3 Core
L715	1 metre x 1.50 mm sq. 3 Core
L716	1 metre x 2.50 mm sq. 3 Core
L717	1 metre x 0.75 mm sq. 4 Core
L718	1 metre x 1.00 mm sq. 4 Core
L719	1 metre x 1.50 mm sq. 4 Core
L720	1 metre x 2.50 mm sq. 4 Core
L741	1 metre x 1.50 mm sq. 5 Core
L730	1 metre x 2.50 mm sq. 5 Core
L740	1 metre x 1.50 mm sq. 7 Core
L742	1 metre x 2.50 mm sq. 7 Core



CY Screened Multicore Flex (Grey)

L721	1 metre x 0.75 mm sq. 2 Core
L722	1 metre x 1.00 mm sq. 2 Core
L723	1 metre x 1.50 mm sq. 2 Core
L724	1 metre x 2.50 mm sq. 2 Core
L725	1 metre x 1.50 mm sq. 3 Core
L726	1 metre x 0.75 mm sq. 4 Core
L727	1 metre x 1.00 mm sq. 4 Core
L728	1 metre x 1.50 mm sq. 4 Core
L729	1 metre x 2.50 mm sq. 4 Core



Crimp on Terminals

All terminals are supplied in packs of fifty.

Code	Model	Type
RED (To suit 0.5 - 1.5 mm Wire)		
L500	43 RER	4 mm Ring
L501	53 RER	5 mm Ring
L503	43 RF	4 mm Fork
L507	15 BSL	Butt Connector
L508	63 RFP	Female Spade
L509	63 RMP	Male Spade
L510	63 RFPT	Insulated Spade
L511	63 RPIG	Piggy Back Spade



BLUE (To suit 1.5 - 2.5 mm Wire)		
L530	43 BER	4 mm Ring
L531	53 BER	5 mm Ring
L533	43 BF	4 mm Fork
L534	53 BF	5 mm Fork
L538	25 BSL	Butt Connector
L539	63 BFP	Female Spade
L540	63 BMP	Male Spade
L541	63 BFPT	Insulated Spade
L542	63 BPIG	Piggy Back Spade

YELLOW (To suit 4.0 - 6.0 mm Wire)		
L560	53 YER	5 mm Ring
L561	65 YER	6 mm Ring
L562	85 YER	8 mm Ring
L565	6 BSL	Butt Connector

Crimp Pliers

Code	Model	Type
L580	SPUI	Simple
L581	RPI	Ratchet
L585	PK156	Ratchet c/w crimps and box



Heater Tapes

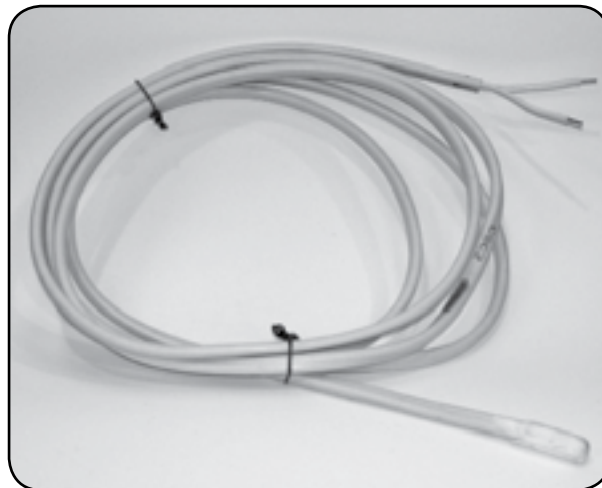
Drain line Heater Tapes are suitable for internal applications and should be energised only when the system is on defrost. If you require permanent operation then please use the self-limiting tapes listed below.

Power output: 40 watts per metre.

Dimensions: 7mm x 5 mm oval cross section.

Supplied with 1000 mm cold leads.

Code	Length
L130	1.0 metre
L131	1.5 metre
L132	2.0 metre
L133	3.0 metre
L134	4.0 metre
L135	5.0 metre
L136	6.0 metre



Cut to Length Heater Tape

Self-limiting, mains voltage cut to length heater tape. Available as a base cable or with a braided outer cover for earth protection.

Used world wide for both drain lines and freezer doors.

We strongly recommend the use of a 30mA residual current device to provide maximum safety.

Minimum bend radius 10 mm.

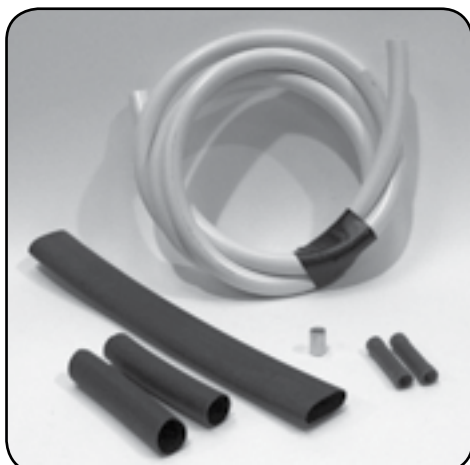
Code	Type
L147	230 volt -16 watts per metre c/w outer braid protection
L149	230 volt -16 watts per metre plain heater tape

Terminal Kits

L148	Single kit for braided tape
L150	Single kit for plain tape



L148 Braided Termination Kit



L150 Plain Termination Kit



Refrigerant

For Conditions of Cylinder loan please see next page.
C.O.S.H.H. Regulations apply, please ask for a copy.



Code Cylinder Size and Type

R22R

M505	12.0 kgs loan cylinder
M506	25 kgs loan cylinder
M507	57 kgs loan cylinder

R417A (Isceon 59)

M553	12 kgs loan cylinder
M554	57 kgs loan cylinder

R407C

M530	9.0 kgs loan cylinder
M531	20 kgs loan cylinder

R410A

M515	9.0 kgs loan cylinder
M516	20 kgs loan cylinder
M517	46 kgs loan cylinder

R413A (Isceon 49)

M563	1 kilo non returnable can **NLA**
M565	13.7 kgs non returnable cylinder **NLA**
M564	9.0 kgs loan cylinder
M567	46 kgs loan cylinder

R134a

M509	12 kgs loan cylinder
M510	13.6 kgs loan cylinder
M511	25 kgs loan cylinder
M513	57 kgs loan cylinder

R403B (Isceon 69L)

M525	13 kgs loan cylinder
M526	60 kgs loan cylinder

R404A

M521	9 kgs loan cylinder
M522	20 kgs loan cylinder
M524	46 kgs loan cylinder

R89

M527	12.5 kgs loan cylinder
M528	50 kgs loan cylinder

R23

M571	8.5 kgs deposit cylinder **NLA**
M572	High Pressure Cylinder Deposit **NLA**

For Conditions of Cylinder loan please see next page.
C.O.S.H.H. Regulations apply, please ask for a copy.



Refrigerant

For Conditions of Cylinder loan please see below.
C.O.S.H.H. Regulations apply, please ask for a copy.



Code Cylinder Size and type

R507
M535 11.3 kgs non returnable **NLA**
M536 9.0 kgs loan cylinder
M538 46 kgs loan cylinder

R408A
M545 12 kgs loan cylinder
M547 50 kgs loan cylinder

R409A
M540 13 kgs loan cylinder
M542 60 kgs loan cylinder

R401A
M570 13 kgs loan cylinder

R402A
M550 12 kgs loan cylinder
M551 50 kgs loan cylinder

R600a
M577 420 gram non return can
(See Page 181 for valve to suit)

C.O.S.H.H. Regulations Apply to Refrigerant - Please ask for a copy



Oxygen Free Nitrogen

Code Cylinder Size and type
M580 10 Litre Cylinder 230 BAR
M581 Cylinder Deposit

Please note that a cylinder deposit is charged at time of order and credited upon return of the OFN cylinder.



Conditions of Cylinder Loan

Credit Account Customers - Loan cylinders are provided free for a period of Six months. Any cylinder **not** returned by the due date will be invoiced to your account. Current charges are £3.50 for a small cylinder and £5.00 for a large cylinder.

Non Credit Account Customers - Must pay a deposit at time of purchase.

Cylinders are fitted with a non-return valve to prevent them being used for reclaim. This is to ensure no contamination of the cylinder. Removal of this device will incur a **charge of £40.00** to cover replacement and cleaning. See over page for reclaim cylinders.

Please keep an accurate record of all the cylinders you hold and keep copies of all your returns notes.

Refrigerant Reclaim Cylinders

National Refrigerants offer both 12 and 61 ltr cylinders for the return of contaminated refrigerant and therefore Normal Traffic cylinders must not be used for transporting used material. A non-return valve is fitted to prevent the use of normal cylinders for reclaim; removal of this device will incur a charge.

We only offer this service to customers who purchase Refrigerants from us and who are registered with a premises code provided by the Environment Agency.

When refrigerant is removed from a system it becomes chemical waste and is covered by that legislation. We can only offer reclaim cylinders to customers that are able to collect from our branches or fall within our normal van delivery network. This is because most carriers will not handle chemical waste.

The cylinder must be returned with a completed hazardous waste consignment note.

Code

M500	12 ltr cylinder
M501	61 ltr cylinder

Waste refrigerant can only be transported in the correct cylinder and with the waste consignment note filled in properly. Any customer returning a reclaim cylinder to a trade counter without a premises code will be refused return and cylinders will not be collected from any customer without a premises code.

The Environmental Agencies are taking this matter very seriously and will prosecute any company or individual that does not comply with government rules and regulations.



Refrigerant Accessories

Code Model

Cylinder Adapters

M012 GB-4C Brass Adapter

M014 Nylon Adapter

M016 Valve to suit 1kg R134a/R413A(49) and 420 gram R600a

Comparator (Slide Rule)

M099 R12, 49, R134a, R22, R502, 69L

Comparator (Digital)

M098 Mastercool 52245 Digital Pressure/Temperature Chart
Includes 61 of the most popular refrigerants
Pressure readings in PSI, BAR & MPa
Temperature readings in °C and °F. Battery Included.

Hazard Warning Labels

M092 Compressed Gas 100 mm

M093 Flammable Gas 100

M094 Compressed Gas 200 mm

M095 Flammable Gas 200



NEW PRODUCT:

This new tape has been introduced for use with existing or new RAC equipment Refrigerant Tape, the tape has been designed for wrapping around the pipe line insulation, in line with the F-Gas proposed suggestions for equipment labelling. Each roll of tape is 66M long and 55mm wide, one label measures 218 mms and reads:

**“ This equipment is charged with refrigerant gas (R404A, R407C or R410A)
it contains fluorinated greenhouse gases covered by the Kyoto protocol.
Charge size is ---- kgs”**

Code Model

Refrigerant Sticker Tape

M080 RST-R404A 66 metre long x 50 mm wide

M081 RST-R407C

M082 RST-R410A



CFC Alternatives

CFC	Alternative	ODP	HGWP	Drop In	Suggestions
R11	R134a	0	0.33	No	Consult Equipment Manufacturer
	R22	0.055	0.43	No	Consult Equipment Manufacturer
R12	R134a	0	0.33	No	Retrofill to Ester Oil
	R49	0	0.44	Yes	For DX systems with no oil change
	R409A (FX56)	0.05	0.36	Yes	For DX systems with no oil change
R22	R407C	0	0.40	No	Retrofill to Ester Oil
	59	0	0.53	Yes	Existing/new equipment no oil change
	R410	0	0.43	No	New equipment with Ester Oil
R500	R134a	0	0.33	No	Retrofill to Ester Oil
	R49	0	0.44	Yes	For DX systems with no oil change
R502	R22	0.055	0.43	No	New Equipment
	69L	0.027	0.92	Yes	Existing equipment no oil change
	R404A	0	0.94	No	New equipment with Ester Oil
	R408A(FX10)	0.02	0.69	Yes	Existing equipment no oil change
R13b1	69L	0.027	0.92	Yes	Suitable for some applications
	89	0	0.84	Yes	Existing equipment no oil change
R13	R23	0	3.00	No	Retrofill to Ester Oil
R503	R23	0	3.00	No	Retrofill to Ester Oil

Glycol

Both MEG & MPG are supplied full strength and will need diluting to suit the application. MPG is about 90% as efficient as MEG but is non toxic. MPG therefore, can be used as a coolant in the systems for dairies, breweries and food processing plants where a leak in the circuit could cause the MPG to come in to contact with the products.

Code	Type	Size
M406	Drum MEG (Monoethylene Glycol)	25 kgs
M407	Drum MPG (Monopropylene Glycol)	25 kgs



Silicone Sealant

A one part flexible fast curing silicone sealant specifically designed for cold rooms and refrigeration applications.

Available in Translucent and White.

Conforms to BS5889 Type B - ISO 9047 - DIN18540F - DIN1845F

Code	Type	Size
M173	Clear Silicone Sealant	310 ml
M174	White Silicone Sealant	310 ml
M176	Gun for Silicone Sealant	



Hydro Sprayer

For use with coil cleaners.

Code	Model	Size
M428	Advanced	8 Litre



Gallo Gun

Clears blocked drains and pump hose with swoosh cartridges, (Please order separately).

Code	Model
M412	Gallo Gun (excludes cartridges)
M413	Box of six Gallo Gun Cartridges



EndoFlush (Flushing Agent)

EndoFlush internal system cleaner and acid remover. Specially formulated for use after a compressor failure, burn out or retrofit. Breaks down carbon deposits, sludge, tar, oil and grease fast. Non-regulated substance – biodegradable- non-flammable

Code	Model	Size
M202	EndoFlush	5 Litre



Easy Range

The Easy Range consists of products pre-mixed and supplied in 500ml aerosol containers.

Easycoat	Coil protection to be used in aggressive environments such as saline or corrosive atmospheres or in areas prone to acid rain.
Easyfind	Bubbling leak detector spray.
Easyclean	Coil cleaner that will attack only the dirt and not the equipment.
Easycare	Cleaner certified to British Standard BS/EN 1040 as a bactericide and to BS/EN 1275 as a fungicide.
Easyfoam	Heavy duty condenser cleaner formulated to foam out stubborn dirt.
Easyfinish	For removal of grease and finger-marks from diffusers and casework – leaving a tidy, spotless job.

Code	Type	Size
M485	Easycoat	500 ml
M486	Easyfind	500 ml
M487	Easyclean	500 ml
M488	Easyfoam	500 ml
M489	Easycare	500 ml
M490	Easyfinish	500 ml



RTU – “Ready To Use”

The RTU products are ready-mixed and supplied in their own applicators. The range consists of Evaporator cleaner, Condenser cleaner, Coil cleaner/disinfectant and a Bubble-up leak detector. RTU products are supplied in a 1 litre ready to use applicator.

Code	Type	Size
M450	RTU Condenser Cleaner	1 Litre
M452	RTU Coil Cleaner/Disinfectant	1 Litre
M454	RTU Evaporator Cleaner	1 Litre
M480	RTU Bubble-up Leak Detector	1 Litre



Envirocoil

Envirocoil is an environmentally friendly Coil cleaner that attacks only dirt deposits, not equipment. Contains only bio-degradable surfactants (no acids, phosphates or solvents) yet still cleans with maximum effectiveness.

Code	Type	Size
M460	Envirocoil	5 Litre



Hydrokleen

Non-acid condenser cleaner. The perfect solution to dirty or greasy air conditioning or refrigeration systems. This totally acid free cleaner produces a heavy duty foam which cuts through all contaminants and leaves the equipment looking as good as new

Code	Type	Size
M466	Hydrokleen	5 litre



Condencide

Condencide will clean and disinfect metal surfaces. It is ideal for use in food preparation areas and is certified to British Standard BS/EN 1276 as a bactericide and to BS/EN 1650 as a fungicide.

Code	Type	Size
M468	Condencide	5 litre



HB30 – Ice Machine Cleaner

Safe for all types of Ice Machine, including those with aluminium or nickel parts. It removes lime and other scale with maximum effectiveness and can also be used for other kitchen equipment. Ideal for removing scale build up from kettles, water dispensers and tea and coffee makers.

Code	Type	Size
M469	HB-30	5 litre



Hydrocoil

A concentrated cleaner that is simple and effective in cleaning evaporator coils. Able to treat extremely dirty coils and also de-odorises, eliminates slime in condensate trays and limits future dirt accumulation.

Code	Type	Size
M462	Hydrocoil	5 litre



Hydrofoam

Developed specifically for air-cooled condensers. This heavy duty foaming cleaner foams out stubborn deposits – even those which have been baked on.

Code	Type	Size
M464	Hydrofoam	5 litre



Drainkleen

Condensate drain cleaner. A powerful and effective liquid drain cleaner formulated specifically to clear organic blockages in condensate drains. Also removes lime-scale and rust deposits from drains and traps.

Code	Type	Size
M465	Drainkleen	5 litre



Grease Gobbler

Formulated specifically to provide a quick and easy to use heavy duty solvent cleaner capable of cleaning away grease and dirt. The high velocity blasting action and the powerful solvents loosen and remove stubborn grease and dirt.

Code	Type
M135	Grease Gobbler 400 ml aerosol



Smelly Jelly

Smelly Jelly has been formulated to provide a pleasant fragrance in fan coil and cassette units. Easy to apply, Smelly Jelly is simply placed within the unit ideally as close to the discharge grille as possible. Once in position and the unit is switched on the fragrance will immediately become noticeable. Available in five fragrances.

Code	Type	
M492	Yellow	Citrus Fragrance
M493	Red	Floral
M494	Green	Herbal
M495	Ivory	Morning
M496	Blue	Mountain



QwikTreat

QwikTreat is an inexpensive, easy to use, long lasting condensate pan treatment. QwikTreat is a patent pending time released tablet that will treat and prevent scum, scale and deposits that can cause odours and clog drains.

Code	Type
M472	QuickTreat Capsules (Pack of Sixteen)



DrainKleen One Shot

The DrainKleen One shot bottle contains enough DrainKleen to effectively clear organic blockages from a single condensate drain. No measuring or manoeuvring heavy bottles.

Code	Type
M475	DrainKleen One Shot 250 ml



StayClean Tablets

StayClean Tablets are an inexpensive, easy to use, long lasting condensate pan treatment. They will control odours and prevent builds up in the condensate tray and drain. Multiple tablets can be used for larger systems for maximum flexibility.

Code	Type
M476	StayClean Mini Tablets (Pack of Twenty)



StayClean Strips

StayClean Strips are placed in the condensate tray. Here they will slowly dissolve in the condensate over a period of six months. As they do they will release a disinfectant that will effectively keep the tray clear of bacteria and moulds. Suitable for systems between 3 and 5kW.

Other sizes available to order - up to 70kW systems – please ask our sales office for details .

Code	Type
M477	StayClean Strips for systems 3 to 5 kW



Clean-N-Safe

Clean-N-Safe is a non-acid, non-caustic biodegradable coil cleaner for use on evaporators and condensers. Clean-N-Safe will not attack the coil or surrounding items. Safer for people, animals and plant life than most other cleaners.

Code	Type
M130	Clean and Safe Aerosol
M131	Clean and Safe 3.8 Litres



Test Kits

Code	Type
Retrofit Kit	
M150	RTK Oil Test Kit To determine level of residual mineral oil In an ester lubricant mixture

Acid Test Kit	
M154	TKO for Mineral Oil
M155	ETK for Polyol Ester Oil



WD-40 Penetrating Oil

Lubricant, moisture repellent, protects metal against rust and cleans away grease.

Code	Type
M180	WD-40 450ml Aerosol
M181	WD-40 5 litre Value Pack c/w spray applicator



Acid Away

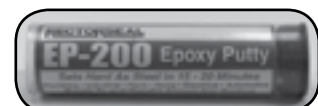
Neutralises harmful acids following a compressor burn out.

Code	Type
M162	Acid Away for Mineral Oil
M163	Acid Away for Ester Oil



Epoxy Putty

Code	Type
M170	EP200 Epoxy Putty



Refrigeration Oils

Code	Type	Size
M039	Alkylbenzene Oil	
M040	AB150	4 litre
	Zerol 150	3.78 litre

Mineral Oil

M041	Suniso 3GS	4 litre
M042	Suniso 3GS	25 litre
M043	Suniso 4GS	4 litre
M044	Suniso 4GS	25 litre
M045	Suniso 5GS	4 litre

Ester Oil

M060	RL-32H	1 litre
M418	Artic EAL 22CC	5 litre
M419	Artic EAL 32	5 litre
M420	Artic EAL 46	3.7 litre
M423	Artic EAL 68	5 litre

Semi Synthetic (AB/MO)

M424	Shell SD2212	5 litre
M426	Shell SD2212	20.5 litre



Oil Specification Table:

Product name	ISO Viscosity Grade	Viscosity cSt @ 40oC	Viscosity cSt @ 100oC	Pour Point (°C)	Flash Point (°C)	Floc Point (°C)
Ester						
Emkarate RL32H	32	150		-46		
MOBIL Arctic EAL 22 CC	22	23.8	4.9	<-54	245	-23 (HFC-134a)*
MOBIL Arctic EAL 32	32	32	5.5	-54	245	-56 (HFC-134a)*
MOBIL Arctic EAL 46	46	46	6.9	-51	251	-50 (HFC-134a)*
MOBIL Arctic EAL 68	68	63	8.3	-43	254	-42 (HFC-134a)*
Alkylbenzene						
ZEROL 150						
Mineral						
SUNISO 3GS	32	30	4.4	-40	168	-54
SUNISO 4GS	68	55	5.9	-36	179	-48
SUNISO 5GS	100	97.2	8.9	-23	182	-
Semi-Synthetic						
SHELL SD 22-12	22	38	4.9	-45	185	<-60 (CFC 12)*
FLOC point data value varies dependent on refrigerant.						

Water Tube and Fittings

Code	Size
Half Hard x 3m Length Water Tube	
N100	15mm o.d.
N101	22mm
N102	28mm



Solder Elbow		
N110	15mm	C x C
N111	22mm	
N112	28mm	
N115	15mm	F x C
N116	22mm	
N117	28mm	



Solder Coupling		
N120	15mm	C x C
N121	22mm	
N122	28mm	



Solder Tee		
N125	15mm	C x C
N126	22mm	
N127	28mm	



Solder Reducing Coupling				
N130	22mm	x	15mm	FTG x C
N131	28mm	x	22mm	
N134	22mm	x	15mm	FTG x C
N135	28mm	x	22mm	
N136	28mm	x	15mm	



Solder End Cap		
N138	15mm	End Cap
N139	22mm	
N140	28mm	

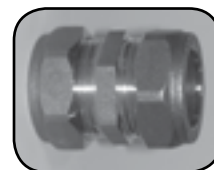


Water Fittings

Code Size

Compression Coupler

N145	15mm	C x C
N146	22mm	
N147	28mm	



N150	15mm	x 1/2"	Male BSP
N151	22mm	x 3/4"	
N152	22mm	x 1"	
N155	15mm	x 1/2"	Female BSP
N156	22mm	x 3/4"	
N157	22mm	x 1"	



N157

Compression Elbow

N160	15mm	C x C	
N161	22mm		
N162	28mm		
N165	15mm	x 1/2"	Female BSP
N166	22mm	x 3/4"	
N167	22mm	x 1"	



N167

Compression Tee

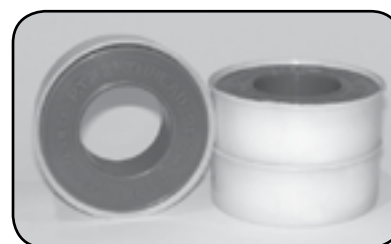
N170	15mm	Equal Tee
N171	22mm	
N172	28mm	



Accessories

Code

N180	PTFE Tape
N181	PTFE Tape Suitable for Nat Gas



Evaporator Drain Pan Adaptor

Drain Tray Adaptor fits most common evaporators such as Friga Bohn and Luve. Most commonly used with the N167 Brass 22mm to 1" female BSP elbow reducer. (N157 Straight reducer also fits adaptor.)

Code

N190	1" Male BSP Drain Outlet Adaptor
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NB: Some of the smaller panel cooler evaporators come with a 3/4" BSP male threaded plastic adaptor. For these outlets please choose the N156 (straight) or N166 (elbow) brass adaptors listed above.



PVC-U Overflow Waste Solvent Weld

White Overflow Pipe 21.5mm Drain Line Tube.

Code	Style
N465	21.5mm White Overflow Pipe 3m length
N466	21.5mm White 90° Elbow
N467	21.5mm White Equal Tee
N468	21.5mm White Coupling
N470	21.5mm White 135° Elbow
N471	32mm x 21.5mm Reducer
N472	40mm x 21.5mm Reducer
N472	21.5mm Tank Connector Straight
N473	21.5mm Tank connector Bent
N476	Solvent Cement 125ml
N477	Solvent Cement 250ml



Waste System - ABS Solvent Weld

White Plastic Waste Pipe and fittings

Code	Style
N420	32mm White Waste Pipe x 3M Length
N421	32mm White Straight Couplers
N422	32mm White 90° Bend
N423	32mm White 92.5° Bend
N424	32mm White 135° Bend
N425	32mm White Equal Tee
N426	32mm White Access Plug
N427	32mm White Pipe Clip
N428	32mm White Hepvo Self Seal Waste Valve
N429	32mm White Hepvo Adaptor Male – Iron Tail



N440	40mm White Plastic Pipe x 3M Length
N442	40mm White Straight Couplers
N443	40mm White 90° Bend
N444	40mm White 92.5° Bend
N445	40mm White 135° Bend
N446	40mm White Equal Tee
N462	40mm White Pipe Clip
N462	40mm x 21.5mm Solvent Reducer
N459	15 mm Talon Locking Pipe Clip
N460	22 mm Talon Locking Pipe Clip
N461	28 mm Talon Locking Pipe Clip



N430	Floplast White Solvent Cement	125 ml
N432	Floplast White Solvent Cement	250 ml



Plastic Tube Cutters

Pipe cutters for cutting White Plastic Drain Pipe.

Code	Style
N415	42TC Rothenberger Ratchet Tube Cutter
N416	PS-38 Scissor Type Pipe Cutter



PVC Tube

Code	Size	Style
30 Metre Coils		
N480	1/8" i.d. x 1/4" o.d.	Clear
N481	1/4" i.d. x 3/8" o.d.	Clear
N482	1/4" i.d. x 1/2" o.d.	Reinforced
N483	3/8" i.d. x 1/2" o.d.	Clear
N484	3/8" i.d. x 5/8" o.d.	Reinforced
N479	1/2" i.d. x 18mm o.d.	Clear
N498	1/2" i.d. x 18mm o.d.	Reinforced
N486	4mm i.d. x 10mm o.d.	Clear
N485	1/4" i.d. x 6mm o.d.	Reinforced Black
N488	3/8" i.d. x 10 mm o.d.	Reinforced Black
6 Metre Coils		
N487	1/2" i.d. x 3/4" o.d.	Reinforced
N489	3/4" i.d. x 1" o.d.	Reinforced



Hose Clips

Bright Zinc plated Mild Steel.

Code	Model	To Suit
N490	HC12	9.5 - 12 mm Diameter
N491	HC16	11 - 16 mm
N492	HC20	13 - 20 mm
N493	HC22	14 - 22 mm
N494	HC25	17 - 25 mm
N495	HC30	22 - 30 mm
N496	HC-3S	25 - 35 mm
N497	HC-4S	35 - 45 mm



Door Gaskets

We supply door gaskets either in kits or in individual 3M lengths. Each kit consists of four L shaped sections with welded corners which can be easily cut to size. Magnetic strip included.

Code	Model	To Suit Doors
Door Kits		
N038	SU 2001	Up to 20" x 30"
N039	SU 2002	Up to 32" x 42"
N043	SU 2003	Up to 32" x 55"

3 Metre Length		
N036	MG-1 Magnetic Gasket	



Little Giant Tank Pumps

Little Giant Condensate pumps are an efficient trouble free solution to the removal of water from applications where gravity drainage is impractical.

LittleGIANT®

Code **Model**
N650 VCC20S
 Max Flow 300 Litre/H
 Max Head 4.3m
 130H x 305L x 127W mm



N651 VCMA20S
 Max Flow 300 Litre/H
 Max Head 4.3m
 178H x 288L x 127W mm



N652 VCL24S
 Max Flow 960 Litre/H
 Max Head 5.8m
 267H x 305L x 152W mm



N653 VCL45S
 Max Flow 1620 Litre/H
 Max Head 10.4m
 267H x 305L x 152W mm



Little Giant Split Pump

Two piece design to allow installation within the smallest A/C unit or the pump unit can be placed in the ceiling void above or in trunking. Pump can be mounted up to one metre above the sensing unit. Design operating point: 6 l/h at 4m. Max Flow 18 Litre/H - Max Head 14m. Fully Automatic; Start, Stop and Overflow Detection.

Code **Model**
N666 EC-400



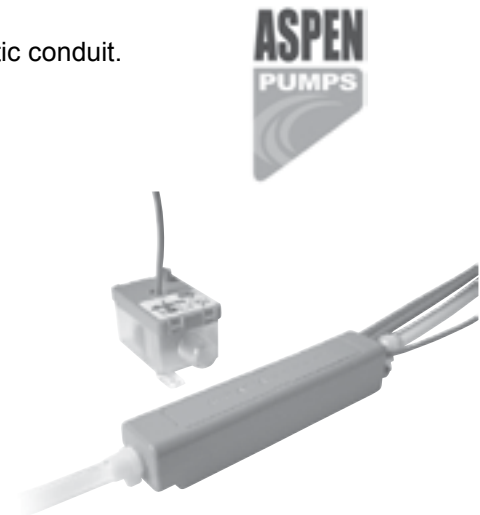
LittleGIANT

Aspen Mini-Aqua Pump

Designed to be installed within wall-mounted evaporators or in the plastic conduit.
Quick and easy to install.

Code **Model**
N623 Aspen Mini-Aqua Pump

Dimensions Pump unit	28mm x 165mm x 28mm
Dimensions reservoir	40mm x 80mm x 41mm
Pump Head	Maximum head 8 metres
Flow Rate	14 litres/hr at zero head
Discharge	6mm
Power Supply	230 volt 50Hz
Alarm	Volt Free NO/NC 3amp Resistive



Aspen Mini-Orange Pump

Split System Mini-Pump.
The pump is supplied with a choice of reservoirs, one for gravity feed and one for standing in the drip tray.

Code **Model**
N619 Aspen Mini-Orange Pump

Dimensions Pump unit	52mm x 122mm x 38mm
Dimensions reservoir	40mm x 75mm x 40mm
Pump Head	Maximum head 8 metres
Flow Rate	14 litres/hr at zero head
Discharge	6mm
Power Supply	230 volt 50Hz
Alarm	Volt Free NO/NC 8amp Resistive



Aspen Mini-Lime Pump

The Mini-Lime pump comes complete with 800 mm of plastic trunking.
The pump is mounted within the elbow supplied.
Completely reversible, can be mounted either side of the unit.
There is space in the trunking for cables and insulated refrigerant tubes up to 3/8 and 5/8.

Code **Model**
N620 Aspen Mini-Lime
N621 Aspen Mini-Lime for use with 70 mm ducting
N622 Aspen Mini Lime OEM Pump only

Dimensions	800mm Trunking with elbow
Pump Head	Maximum head 8 metres
Flow Rate	14 litres/hr at zero head
Discharge	: To suit 6mm i.d. Plastic
Power Supply	: 230 volts, 1PH 50Hz
Alarm	Volt Free NO/NC 8amp Resistive



Aspen Standard Peristaltic Pump

Peristaltic pump complete with three minute overrun timer to clear the drain tray.

Code	Model
N600	Aspen standard pump
N601	BKT-01 Wall mounting bracket

Dimensions	: (H) 142 (W) 83 (D) 175mm
Pump Head	: 12 metres & 2.0 metre Suction
Flow Rate	: 6.25 litres/hr at 12 metres
Discharge	: To suit 1/4" i.d. Plastic
Power Supply	: 230 volts, 1PH 50Hz
Temp Limit	: On tube -30/+100 Deg.C



Aspen Universal Pump

Peristaltic pump with sensors to measure a 7 Deg.C differential across the evaporator coil. The pump only operates when the unit is in cooling mode.

Code	Model
N602	Aspen universal pump
N601	BKT-01 Wall mounting bracket

Dimensions	: (H) 142 (W) 83 (D) 175mm
Pump Head	: 12 metres & 2.0 metre Suction
Flow Rate	: 6.25 litres/hr at 12 metres
Discharge	: To suit 1/4" i.d. Plastic
Power Supply	: 230 volts, 1PH 50Hz
Temp Limit	: On tube -30/+100 Deg.C



Aspen Pump with Sensor

Peristaltic pump with water sensor.

Code	Model
N604	Aspen Mk4 pump with water sensor
N601	BKT-01 Wall mounting bracket

Dimensions	: (H) 142 (W) 83 (D) 175mm
Pump Head	: 12 metres & 2.0 metre Suction
Flow Rate	: 6.25 litres/hr at 12 metres
Discharge	: To suit 1/4" i.d. Plastic
Power Supply	: 230 volts, 1PH 50Hz
Temp Limit	: On tube -30/+100 Deg.C



Aspen Hi-Lift Tank Pumps

Peristaltic pump with tank. Tank capacity 1 or 2 litres. Pre-wired safety switch.

Code	Model
N606	Aspen pump with 1 litre tank
N607	Aspen pump with 2 litre tank

Dimensions 1 litre	: (H) 135 (W) 235(D) 145mm
Dimensions 2 litre	: (H) 150 (W) 235(D) 145mm
Pump Head	: 12 metres
Flow Rate	: 11 litres/hr at 12 metres
Discharge	: To suit 1/4" i.d. Plastic
Power Supply	: 230 volts, 1PH 50Hz
Temp Limit	: On tube -30/+100 Deg.C



Aspen Hi-Flow Tank Pumps

Conventional pumps. Two models available.
Tank capacity 1 or 2 litres.
Pre-wired safety switch.

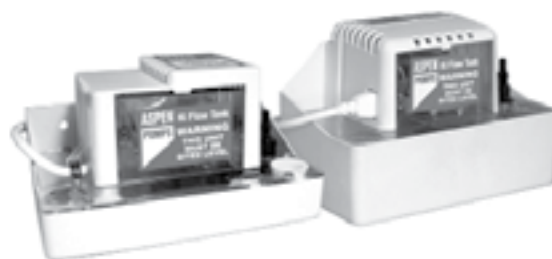


Code Model

N608 Aspen Hi-Flow with 1 litre tank

N610 Aspen Hi-Flow with 2 litre tank

Dimensions 1 litre : (H) 135 (W) 235(D) 145mm
Dimensions 2 litre : (H) 162 (W) 235(D) 145mm
Pump Head : 3.9 metres
Flow Rate : 180 l/hr at 1M Head
: 12 l/hr at 3.9M Head
Discharge : To suit 1/4" i.d. Plastic
Power Supply : 230 volts, 1PH 50Hz



For PVC Tube and Hose Clips – See Page 193

Spare Tube for Peristaltic Pumps

Inspect pump head regularly and change the tube every twelve months or more frequently if required.

Code Model

N612 Spare Head Tube for Aspen Pumps



Condensate Evaporator Trays

A range of cast aluminium evaporator trays with built in electric elements for use with air conditioning, refrigeration and display case applications where the need for forced evaporation is required for condensate removal.

Code Model

N510 ES-8-2T Tray - 1litre 0.25 l/hr evaporation rate

N511 ES-16-12 - 2 litre 0.5 l/hr evaporation rate



Model ES-8-2T is self regulating, with Thermal Overload Protection.

Model ES-16-12 is self regulating, but with **No** Thermal Overload.



Sauermann Tank Pumps

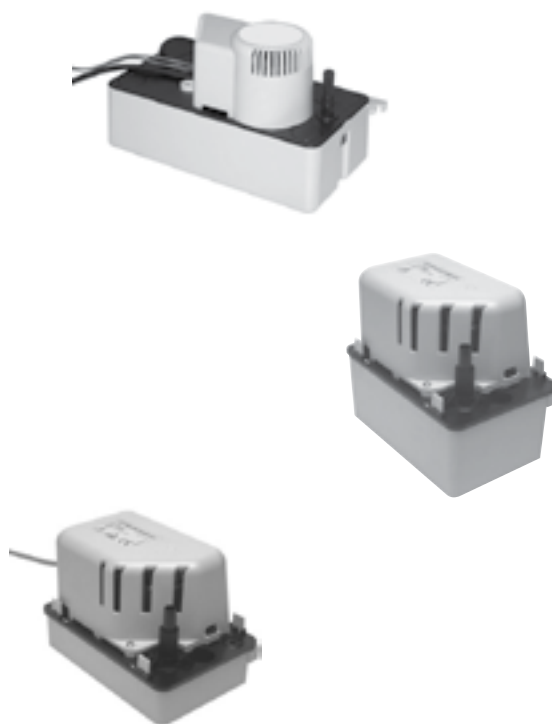
The following centrifugal pumps are designed for those applications requiring removal of heavy and contaminated condensates. They are particularly suitable for applications such as Multi-Cassettes, Ducted Units, Laboratory Evaporators, Display Cabinets and Cold Store Evaporators.

All Pumps offer both 1/4 and 3/8 Non Return Valve as standard.



Code	Model	Tank Capacity
N700	SI1800	2 litre
N702	SI1820	2 litre
N707	SI1805	0.5 litre

Dimensions SI 1800	: (H) 161 (W) 127 (D) 283 mm
Dimensions SI 1820	: (H) 170 (W) 130 (D) 195 mm
Dimensions SI 1805	: (H) 122 (W) 130 (D) 195 mm
Pump Head :	
SI1800	: 4.7M
SI1820 & SI 1805	: 5.4M
Flow Rate :	
SI1800	: 40 litres/hr at 4M Discharge
SI1805/1820	: 90 litres/hr at 5M Discharge
Discharge	: To suit 3/8 & 1/4" i.d. Plastic
Sound Level @ 1m	: 47 dBA
Power Supply	: 230 volts, 1PH 50Hz
Alarm Contact	: NC 4 A resistive – 250 v



Sauermann Peristaltic Pumps



Peristaltic pumps are designed for those applications requiring removal of heavy or charged condensates. Their compact design makes them particularly suitable for applications up to 8kw capacity.

Code	Model
N710	PE5000 240V Cooling Signal
N711	PE5100 Temperature Differential
N712	PE5200 Remote Float Sensor

N715	Replacement Head
N716	Replacement Tube

Dimensions Pump Unit	: (H) 91 (W) 110 (D) 109 mm
Sensor Unit PE5200	: (H) 36 (W) 38 (D) 55 mm
Suction Head	: 2 metres
Pump Head	: 12 metres
Flow Rate	: 6 litres/hr at 12M Head
Discharge	: To suit 1/4" i.d. Plastic
Sound level @ 1m	: 30 dBa
Power Supply	: 230 volts, 1PH 50Hz
Alarm (PE5200 only)	: NC 8 A resistive – 250v



Sauermann Delta Pack

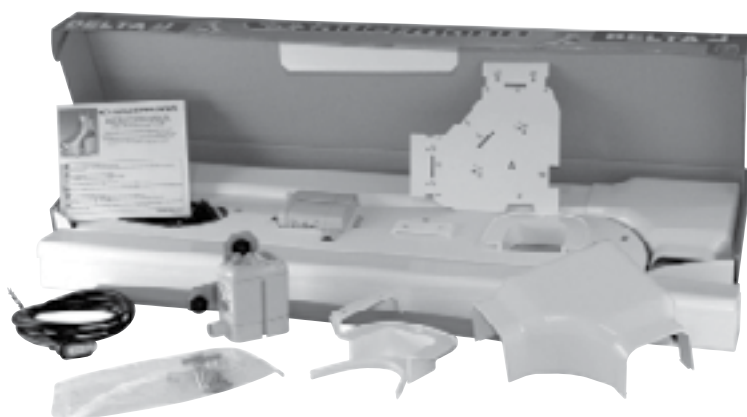
The Delta Pack, is a ready to install unit specially designed for wall air conditioning systems up to 10kw. The pump has a state of the art no clogging no service detection unit. The kit is supplied with all the components to ensure a quick, efficient and reliable installation. The pump is connected using a kettle plug and has a high level alarm facility. The Delta Pack includes the Sauermann SI 1082 pump with anti vibration mounting bracket, 75cm of trunking, one flat 90° elbow, rosette and quick seal strip to connect the cover and butt up to the air conditioning unit ensuring an aesthetically pleasing installation.

Code	Model
N708	Delta Pack SI 1082 mono bloc pump

Dimensions Pump	: (H) 77 (W) 44 (D) 66 mm
Dimensions Cover	: (H) 60 (W) 165 (D) 165 mm
Dimensions Pack	: (H) 70 (W) 185 (D) 780 mm
Pump Head	: 6 metres
Flow Rate	: 8 litres/hr at Zero head
Discharge	: To suit 1/4" i.d. Plastic
Sound Level @ 1m	: 28 dBa
Power Supply	: 230 volts, 1PH 50Hz
Alarm Contact	: NC 8 A resistive – 250 V



sauermann



Sauermann Accessories

Code	Model
N478	Blonde Rubber
N730	ACC00110 Special Install Kit
N732	ACC00240 1-1/2 x 3/4 Adaptor
N734	ACC00230 1-1/4 x 3/4 Adaptor
N736	ACC00225 1" x 3/4 Adaptor
N737	ACC00225 1" x 3/4 Adaptor (pack of 3)
N738	ACC00230 1-1/4 x 3/4 Adaptor (pack of 3)
N739	ACC00240 1-1/2 x 3/4 Adaptor (pack of 2)
N742	ACC00401 Priming Bottle
N744	ACC17010 In-Line Filter
N746	ACC00205 Self Seal Adaptors (pack of 6)



sauermann

Sauermann Mini Pumps

These pumps were designed to meet demands for silence and ease of assembly in air conditioners having little interior space. They do not have the traditional metal filter that can so easily clog up causing water spillage problems. The Sauermann sensor unit is designed using a protective comb thus stopping any larger particles such as plastic or metal that could damage the piston motor.

Code	Model
N720	SI 3080
N721	SI 3100
N722	SI 3200

Dimensions Pump Unit	: (H) 59 (W) 44 (D) 66 mm
Dimensions Sensor Unit	: (H) 36 (W) 38 (D) 55mm
Pump Head	: 6 metres
Max Suction Head	: SI 3080 1metre : SI 3100/3200 2 metres
Flow Rate :	
SI13080	: 8 l/hr at zero head
SI3100	: 10 l/hr at zero head
SI3080	: 20 l/hr at zero head
Noise SI3080/3100/3200	: 28dBa/ 30dBa/ 34dBa @ 1metre
Alarm Contact	: NC 8 A resistive – 250V
Discharge	: To suit 1/4" i.d. Plastic
Power Supply	: 230 volts, 1PH 50Hz



sauermann

Sauermann High Performance Mini Pump

Specially designed for the larger wall mounted, ceiling mounted, ducted and floor mounted air conditioning units. Suitable for air conditioners up to 30kW.

Code	Model
N724	SI 1730

Dimensions Pump Unit	: (H) 95 (W) 52 (D) 74mm
Sensor Unit	: (H) 35 (W) 40 (D) 55mm
Suction Head	: 2.5 metres
Pump Head	: 10 metres
Flow Rate	: 30 litres/hr at zero head
Discharge	: To suit 1/4" i.d. Plastic
Sound Level @ 1m	: 42 dBA
Power Supply	: 230 volts, 1PH 50Hz
Alarm Contact	: NO-NC 8 A resistive – 250V



sauermann

For PVC Tube and Hose Clips - See page 122

Blue Diamond Pumps

The Blue Diamond is a self priming pump designed to quickly and efficiently remove condensed water from refrigeration and air conditioning systems where gravity drainage is not practical.

The pump is operated by either full reservoir sensing with zero volt alarm output (preferred option) or the Hot and Cold temperature sensor.

Code	Model
N764	Blue Diamond Basic Pump only
N760	Blue Diamond – with Temperature Sensor
N762	Blue Diamond – with Reservoir Sensor

Dimensions 1 litre	: (H) 135 (W) 235 (D) 145mm
Dimensions 2 litre	: (H) 162 (W) 235 (D) 145mm
Pump Head	: 3.9 metres
Flow Rate	: 180 l/hr at 1M Head
	: 12 l/hr at 3.9M Head
Discharge	: To suit 1/4" i.d. Plastic
Power Supply	: 230 volts, 1PH 50Hz

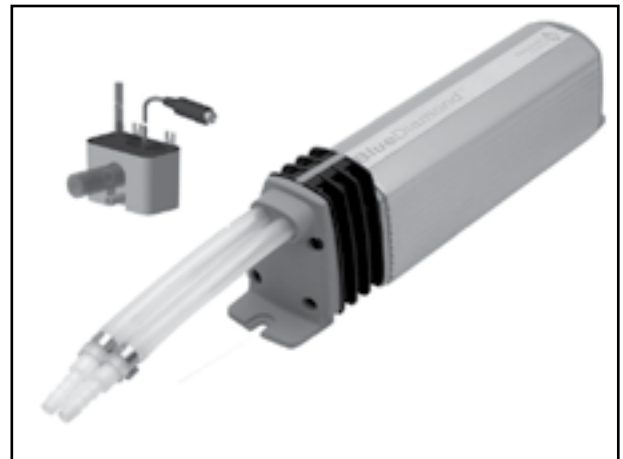


Reservoir



Temp Probes

BlueDiamond™
The only fit and forget condensate pumps



MiniBlue Pumps

The MiniBlue has all the benefits of the Blue Diamond pump but in a smaller package. It is small enough to fit into trunking, powerful enough for distant location and quiet enough for ceiling mounting. Simple and easy to install.

Code	Model
N766	MiniBlue
N768	MiniBlue with Temperature Sensor

Dimensions 1 litre	: (H) 135 (W) 235 (D) 145mm
Dimensions 2 litre	: (H) 162 (W) 235 (D) 145mm
Pump Head	: 10 metres
Flow Rate	: 8 l/hr at 0 to 4M Head
	: 4-1/2 l/hr at 10M Head
Discharge	: To suit 1/4" i.d. Plastic
Power Supply	: 230 volts, 1PH 50Hz



Reservoir option not available
with the MiniBlue.

MiniBlue™
The small condensate pump that works
and works and works



Pacific Condensate Pump

Code **Model**
N502 PCF3000.0

Features:

- * Compact - Only 130 mm long x 45 wide x 30 mm high.
- * Can be installed horizontally or preferably vertically.
- * For use with 70mm trunking.



Hot Water Condensate Pump

This pump is suitable for use at temperatures up to 100 degrees Centigrade.

Code **Model**
N518 A2-SA

Features:

- * 3.5 litre heavy duty aluminium reservoir.
- * 3000 rpm motor with thermal overload protection.
- * Inlet: 1-3/8, outlet: 3/8 female pipe thread.
- * Dimensions: 9" long x 6" wide x 10" high.
- * 900 l/hr at 3M Head - 410 l/hr at 6M Head



Hartell PAB-3 Pump

Code **Model**
N520 PAB-3

Features:

- * Big One gallon reservoir, high impact ABS Plastic.
- * Inlet: 1-3/8, Outlet: Fluted fitting for 3/8 i.d. tubing.
- * Auxiliary safety switch fitted.
- * Non Return Valve fitted.
- * Dimensions: 10-1/8" long x 6" wide x 10" high.
- * 365 l/hr at 3M Head - 74 l/hr at 6M Head.



Hydron Tiny Tim Pump

Tiny Tim pump complete with tank sensor.
LED indicators showing mains on, fail safe or overload.
Voltage free fail safe contacts for safety cut-out.
Pump will fit into 75mm Inoac Trunking.

Code **Model**
N582 HY/TT Tiny Tim Pump
2.0 metre suction lift.
4.0 metre maximum head.
10 metre horizontal run at 1 metre head.
16 litres per hour at zero head.
5 litres per hour at 4.0 metre head.
Dimensions:
Pump (H) 62 (W) 131 (D) 32 mm
Sensor (H) 40 (W) 85 (D) 35 mm



For PVC Tube Please See Page 122

PVC Strip Curtains

- * Made to Measure, Supplied in a Kit.
- * Aluminium Hanging System - Will not rust.
Available in hook format if required – please ask!
- * Complete with Fixing Brackets.

Polar Grade Material: @ list price LESS 33%.

EEC, Scandinavia and USA Food and Drugs approved for contact with food. Contains no heavy metals (Lead Borium or Cadmium).

Standard Grade Material: @ list price LESS 40%.

Available for non-food contact

Please supply door width and height (actual opening).
Curtains will be provided with sufficient overlap on each side and the top.

Prices are for 200mm x 2mm thick partial overlap (50%).
Other sizes and thickness available to order.

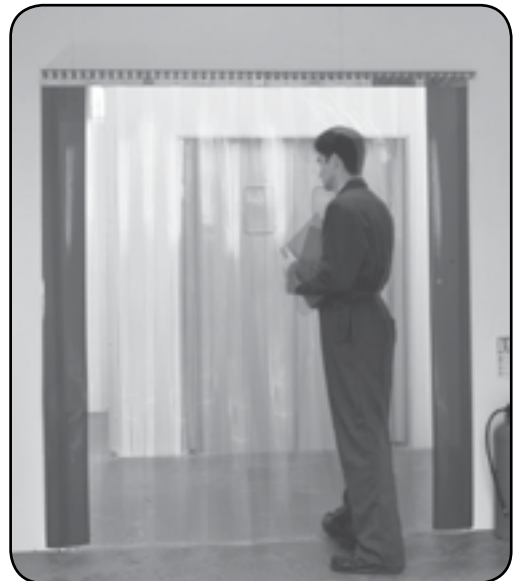
To obtain price use the table below. For Example:

For a 2300mm wide x 1900mm high door you
select the next column above the required size.

i.e.: 2.5m wide x 2m high price = £283.00 List.

Polar Grade Curtains subject to a trade discount of 33%

Standard Grade Curtains to a trade discount of 40%.



WIDTH METRES	HEIGHT IN METRES			
	1.5	2.0	2.5	3.0
1.00				
1.25				
1.50				
1.75				
2.00				
2.25				
2.50				
2.75				
3.00				
3.25				
3.50				
3.75				
4.00				

Replacement PVC Strip Material

Standard grade material for non-food contact applications.
Polar grade material for food contact or low temperature use.

Code Type

Cut Lengths

- N210** 200 x 2mm Standard Grade / metre
- N211** 300 x 3mm Standard Grade / metre
- N212** 200 x 2mm Polar Grade / metre
- N213** 300 x 3mm Polar Grade / metre

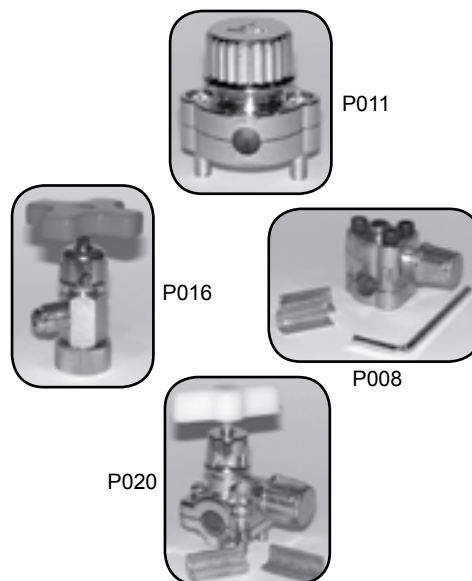
50 Metre Rolls

- N216** 200 x 2mm Standard Grade / roll
- N217** 300 x 3mm Standard Grade / roll
- N218** 200 x 2mm Polar Grade / roll
- N219** 300 x 3mm Polar Grade / roll



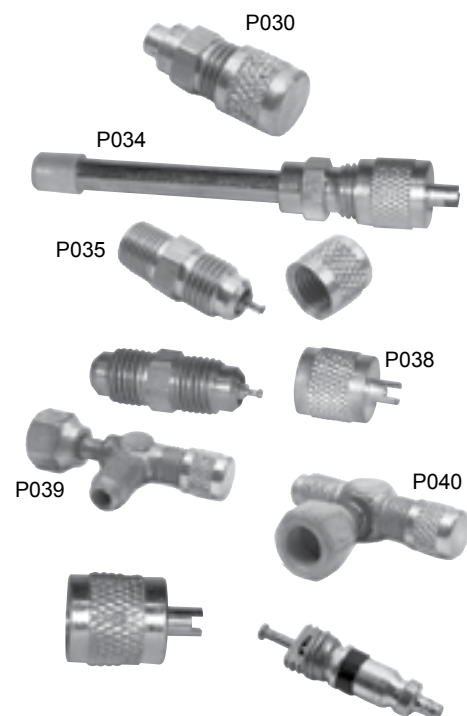
Line Taps

Code	Model	To Suit
P010	LT-3G	3/16" Line Tap
P011	LT-4G	1/4
P012	LT-5G	5/16
P013	LT-6G	3/8
P014	LT-8G	1/2
P015	LT-10G	5/8
P016	CV-1G	Control Valve
P017	CV-2G	
P008	BPV-31	1/4, 5/16, 3/8
P020	AP-1	3/16 to 3/8
P021	AP-2	3/8 to 5/8



Access Fittings

Code	Model	To Suit
P030	CT-7000	3/16, 1/4, 3/8
P031	VA-34	3/16 or 1/4 solder
P032	VA-46	1/4 or 3/8 solder
P033	SU-03	3/16 copper tube
P034	SU-04	1/4
P035	CT-627 04/02	1/8 MPT to 1/4 FL
P036	CT-627 04/04	1/4 MPT to 1/4 FL
P038	CT-628 04/04	1/4 flare Union
P039	VST-44 Access on branch	1/4 flare tee Depressor on run
P040	VST-4 Access on run	1/4 flare tee Depressor on branch
P041	VCR-04 Quick Cap	1/4 flare Cap
P042	VC 6400	Pack of 10 spare schrader cores



Core Removers

Model 40536 is a simple core remover with spare cores in the lid.

The CD 3900 tool allows the removal and replacement of the core without losing the refrigerant. It can also be used to charge through an access fitting with the core removed. This speeds up evacuation and charging considerably.

Code	Style
P100	40536 c/w with spare cores
P105	MV 3900 Core removal Tool



Tube Cutters

Code	Model	To suit tube sizes
Q001	Rothenberger No 35	1/4 to 1-3/8"
Q003	TC 127	1/8 to 5/8"
Q004	TC 274	1/8 to 1-1/8"
Q005	TC1050	1/8 to 5/8"
Q006	227FA	1/8 to 3/4"
Q002	174 FC	1/8 to 1-1/8"
Q007	TC1000	1/8 to 1-1/8"
Q008	312FC	1/4 to 1-5/8"
Q009	206FB	3/8 to 2-5/8"



Capillary Tube Cutter

Q014 CTC Cutter

Flare Kits

Code	Model	To suit tube sizes
Flare Kit		
Q015	195FC	3/16 to 5/8"
Q016	500FC	3/16 to 5/8"
Q018	375FS	1/8 to 3/4"
Q022	FTE-800 STD c/w flare tool and carry case	
Q023	FTE-800 Full c/w flare tool, case, tube cutter, inner/ outer reamer, service ratchet, swaging punch and 1/4, 3/8, 1/2 and 5/8 bending springs	



Flare-Swage Kit

Q020 275FS 1/8 to 3/4"

Swaging Punches

Code	Model	To suit tube sizes
Q025	93S 03	3/16"
Q026	93S 04	1/4"
Q027	93S 05	5/16"
Q028	93S 06	3/8"
Q029	93S 08	1/2"
Q030	93S 10	5/8"
Q031	93S 12	3/4"
Q032	93S 14	7/8"
Q033	CH-193 – Set of Five	1/4, 5/16, 3/8, 1/2, 5/8"



ITE Spares

Code	Model	To suit
Q010	32633 Wheel	TC1050/227
Q011	75015 Wheel	TC1000/312
Q012	74761 Wheel	206
Q100	26883 Screw	TC1050/227
Q101	74762 Screw	TC1000/312
Q102	75531 Bar	195FC
Q103	75534 Yoke	195FC
Q104	278-FS-03-04-06 Swage	275FS
Q105	278-FS-08 Swage	275FS
Q106	278-FS-10 Swage	275FS
Q107	278-FS-12 Swage	275FS
Q108	38600 Flare Cone	275FS
Q109	38766 1/8 to 7/16 Flare Bar	275FS
Q110	38767 1/2 to 3/4 Flare Bar	275FS
Q111	7885801 Yoke	275FS



Tube Benders

Code	Model	Size
Bending Springs		
Q035	102-F-04	1/4"
Q036	102-F-06	3/8
Q037	102-F-08	1/2
Q038	102-F-10	5/8
Q039	102-F-12	3/4
Q040	102-F-14	7/8




Q042	9881635	7 piece Set - 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4"
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Combination Benders

Q070	CH 666	1/4 - 5/16 - 3/8"
Q073	14528 Robinair	3/16 to 3/8
Q075	BABY S	3/8 - 1/2 - 5/8"



Hand Benders

Q080	364 FHB-08	1/2"
Q081	364 FHA-10	5/8
Q082	364 FHA-12	3/4
Q083	364 FHA-14	7/8



Q090	Rothenberger Maxi	3/8 - 1/2 - 5/8 - 3/4 - 7/8"
Q091	Rothenberger Multi	1/2 - 5/8 - 3/4 - 7/8"



Gear Benders

Q084	270-F-12	3/4"
Q085	270-F-14	7/8
Q086	270-F-18	1-1/8



Hydraulic Benders

Q088	HB-451 Hydraulic Bender	
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Reamer

Code	Model
Q013	208 Inner and Outer Reamer
Q139	PTR-1 Reamer c/w Two Blades
Q140	PTR-2 Pen type Reamer



Valve Keys

Code	Model	To Suit
Q116	RW 123	3/16 - 1/4 square 1/2 - 9/16 AF
Q118	RW 122	3/16 - 1/4 square 5/16 - 3/8 square
Q141	RW 127	5/16 - 3/8 square 1/4 - 3/8 square



Ratchet Tool

Code	Model	
Q125	MV-3816	7 in 1 Ratchet Tool



Pinch Off Tool

Code	Model	To Suit
Q055	VG-10 Lock-grips	(3/16 to 3/8)
Q058	VG-121NG Spare Needle and Gasket	



Piercing Pliers

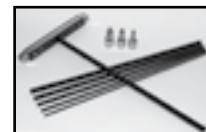
Line piercing pliers for refrigerant recovery.

Code	Model	
Q050	PT-109 Piercing Tool	
Q051	Replacement Needle and Gasket	



Wrench Sets

Code	Model	
Q165	TL-17 9" Extra long Hexagon Wrench Set	
Q168	TW-8 Torque Wrench Set	



Multi Fin Comb

Code	Model	
Q120	Multi Fin Comb	
Q121	Coil Fin Brush	



Oil Charge Pump

Code	Model	To Suit
Q135	OP-1	1 gallon can
Q136	OP-5	5 gallon can



Tube Expander Kits

Code	Model
Q179	CH-1000 Kit in carrying case c/w 6 heads - 3/8, 1/2, 5/8, 3/4, 7/8 and 1-1/8
Q169	CH-E Expander Pliers to suit CH-1000 Kit
Q170	3/8" Head to suit CH-1000 Kit
Q171	1/2" Head to suit CH-1000 Kit
Q172	5/8" Head to suit CH-1000 Kit
Q173	3/4" Head to suit CH-1000 Kit
Q174	7/8" Head to suit CH-1000 Kit
Q175	1-1/8" Head to suit CH-1000 Kit
Q176	1-3/8" Head to suit CH-1000 Kit
Q177	1-5/8" Head to suit CH-1000 Kit
Q178	AR-1 Heavy Duty Expander 1-3/8 to 4-1/8
Q180	TE-7 Expander Set in carrying case c/w 7 heads - 3/8, 1/2, 5/8, 3/4, 7/8, 1-1/8 and 1-3/8
Q181	TE-6-01 Expander Pliers to suit TE-7 Kit
Q182	3/8" Head to suit TE-7 Kit
Q183	1/2" Head to suit TE-7 Kit
Q184	5/8" Head to suit TE-7 Kit
Q185	3/4" Head to suit TE-7 Kit
Q186	7/8" Head to suit TE-7 Kit
Q187	1-1/8" Head to suit TE-7 Kit
Q188	1-3/8" Head to suit TE-7 Kit
Q189	1-5/8" Head to suit TE-7 Kit



Inspection Mirrors

Code	Model	Dia. of mirror	Extension
Q059	MIR-1	1-1/4"	4-3/4" to 19-1/2"
Q060	MIR-2	2"	8-1/2" to 18"



Pliers

Code	Model	
Q400	Hi-Tech Long Nose Pliers	200 mm
Q401	Hi Tech Combination Pliers	200 mm
Q402	Hi Tech Side Cutting Pliers	180 mm
Q403	Draper VDE Plier Kit	3 piece
Q404	Draper VDE Plier/S/Driver Set	10 piece

HI-TECH



Screwdrivers

Code	Type	
Q405	Draper Insulated Screwdriver Set	11 piece
Q406	Draper Mains Testing Screwdriver	65 mm
Q407	Draper Mains Testing Screwdriver	105 mm
Q408	Draper Chubby Ratchet S/driver with Assorted Bits Set	7 piece
Q409	Draper 9 pc Schroder Screwdriver Bit Dispenser	
Q410	Draper T-Handle Screwdriver Set	41 piece



Wrenches

Code Model

Draper Adjustable Wrench – Black Phosphate Finish

Q700	150 mm Wrench
Q701	200 mm
Q702	250 mm
Q703	300 mm

Draper Adjustable Wrench – Polymer Handles

Q706	150 mm Wrench
Q707	200 mm
Q708	250 mm
Q709	300 mm

Bahco Adjustable Wrench – Black Finish

Q712	Bahco 8070	150 mm Wrench
Q713	Bahco 8071	200 mm
Q714	Bahco 8072	254 mm
Q715	Bahco 8073	305 mm

Bahco Wide Jaw Adjustable Wrench – Black Finish

Q716	Bahco 9029	150 mm Wrench
Q717	Bahco 9031	200 mm

Draper Wrench Sets

Q718	3 piece Adjustable Wrench Set	6, 8 & 10"
Q719	3 piece Self Grip Wrench Set	6, 8 & 10"

Spanners

Code Model

Combination Spanner Set - MM

Q720	11 piece Set
Q721	14 piece Set

Combination Spanner Set - AF

Q724	11 piece Set
Q725	14 piece Set

Ratchet Ring Spanner Set - MM

Q727	5 piece Set
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Socket Sets

Code Model Size

Square Drive Sets

Q730	75 piece	1/4"
Q731	42 piece	3/8"

Draper Vortex Set

Q733	16 piece	VTX-16AM
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Hand Tools

Code	Model
Q424	Knipex Alligator Water Pump Pliers 10"
Q425	Draper Expert VDE Water Pump Pliers 10"
Q423	5 piece Circlip Plier Set
Q422	Hand Riveter Kit (Aluminium rivets)
Q463	Stanley Chalkline Set
Q460	10 piece Metric Hex Key Set - Ball End
Q461	10 piece AF Hex Key Set - Ball End
Q462	30 piece AF & Metric Hex Key Set c/w carry case
Q429	5 metre Comfort Grip Measuring Tape
Q430	10 metre Comfort Grip Measuring Tape
Q431	20 oz Claw Hammer
Q434	Draper Junior Hacksaw c/w Blade
Q435	Pack of Ten Junior Hacksaw Blades
Q436	Draper 12" (300mm) Soft Grip Hacksaw
Q437	Eclipse 12" (300mm) Spare Blade (24 TPI)
Q438	Rolson Folding Lock Knife
Q439	Pack of 10 Spare Blades
Q428	Pack of 100 Spare Blades
Q440	HSS Metric Drill Bit Set (19 sizes 1.0/10mm)
Q443	11 piece SDS Drill and Chisel Set (Masonry)
Q444	20 piece SDS Drill Set (Masonry)
Q445	1 Metre Long 3 piece SDS Drill Set
Q446	SDS Drill Bit 5.5 mm x 160 mm
Q447	SDS Drill Bit 7.0 mm x 160 mm
Q464	122 piece Draper Drill and Accessory Kit
Q441	4.5 metre Ratchet Strap
Q448	Pair Automatic Quick Acting Straps
Q510	Twin Socket Cable Reel 25M 13 Amp
Q512	Dynabrite L.E.D. Wind-Up-Torch
Q513	6 Volt ABS Torch c/w Battery
Q514	LED Aluminium Torch Set
Q515	240 Volt Gripper Lamp

Solar Power Dial Thermometers

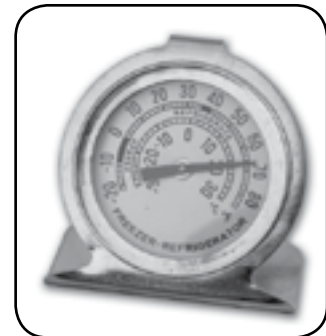
2" Stainless Steel dial thermometer, solar powered with battery back up as light level decreases. Switch to select °C or °F

Code	Type
Q867	DST-2001SC 48" Wire Sensor Range: -40/+70°C or -40/+160°F



Cabinet Thermometer

Code	Type
Q869	RT-221 Refrigerator & Freezer Thermometer with 50mm dial Range: -30/+30°C



Digital Thermometers

Code
Q870

Type

EWTM101 Eliwell Electronic Thermometer
Range: -55/+99.C
Panel mounting cut out 71 x 29 mm
Dimensions: 74 x 32 x 67 mm
1.5 metre PTC Probe supplied
12 volt a.c./d.c. supply
For transformer see page 155

12 Volt Model



eliwell

Q871

EWTM201/230 Eliwell Electronic Thermometer
Range: -55/+99.C
Panel mounting cut out 71 x 29 mm
Dimensions: 74 x 32 x 67 mm
1.5 metre PTC Probe supplied
230 volt a.c. supply

240 Volt Model



Q872

DT-1001S Solar Powered Thermometer
with battery back up
Range: selectable -40/+70°C (-40/+160°F)
Surface mounting
Dimensions: 114 x 29 x 16 mm
48" Probe supplied
Solar Powered with battery back up



Q873

ST1000 Solar Powered Thermometer
Range: -50/+70.C
Surface mounting
Dimensions: 105 x 38 x 16 mm
3.0 metre Probe supplied
Solar Powered



Q874

SP-120 Solar Powered Thermometer
Range: -50/+70.C or equivalent in .F
Surface mounting
Solar Powered with battery back up



Q875

RT905A Hand Held Digital Thermometer
Read out in Celsius or Fahrenheit
Range: -50/+150.C and -58/+302.F
Stainless Steel Probe 100 mm long
with 1.0 metre cable.
Battery Powered



Q876

DGT-1415 Pocket Thermometer
Read out in Celsius or Fahrenheit
Range: -50/+150.C and -58/+302.F
1-1/4" Diameter with 5" S/S Stem
Battery Powered



Supco Data Logger

The SL data logger is a vital piece of equipment in today's market place. For service use or to monitor your customers equipment to enable you to advise on energy savings to reduce the Climate Change Levy. See below for details

Code	Model
Q880	SL200C Data Logger complete with Software on CD



Features:

The SL200 temperature logger is an easy to use versatile device which can be used for a wide range of temperature logging applications. Each unit is factory calibrated to an accuracy of 0.5°C over the operating range of -40°C to +85°C and comes with a 3 Volt Lithium battery that gives over three years continuous operation.

This data logger is capable of sampling temperature as fast as once per minute or as slow as once every four hours. A total of 2048 temperature points can be stored in it's memory, allowing a logging span as short as 1-1/2 days or as long as 1 year. The start of recording is software selectable to be immediate, delayed (up to 6 weeks delay can be specified) or initiated on a user button press.

This model can also be used to monitor long term high and low temperature alarm events, that indicate if the temperature passed above and/or below a user selectable threshold. The alarm events are stored separately from the temperature sample memory and are recorded even after the 2048 sample memory becomes full. When the temperature passes the high or the low alarm threshold, the SL200 records the time of the alarm. When the temperature returns to the acceptable range, the SL200 records the duration of the alarm. Up to twelve low and high temperature alarm events can be recorded. The logger has a visual indication of an alarm condition without the need to connect to the computer.

The SL200 model has an internal real time clock/calendar with automatic leap year compensation. It also provides a high level of data security and it is virtually impossible to falsify the sample data or alarm information.



The SL 200 (shown left) is due to be replaced by the new model SL300T (shown on the Right) during the year.

We will supply the SL200 until stocks are replaced with the updated version.



Electrical Instruments

Code	Model	
Q250	V-STICK	The original non-contact voltage detector. Will find breaks in cables or blown fuses.
Q251	MFD-10	Capacitor Tester Battery Powered LED readout Measures capacitance value on start and Run capacitors between 0.01 and 10000 mfd
Q252	YF 3140	Digital Multimeter c/w Case Range: AC Volts 200mV-2-20-200-750V DC Volts 200mV-2-20-200-1000V AC Current 2m-20m-200m-20A DC Current 2m-20m-200m-20A Resistance 2K-200K-2M 20M-200M ohm Continuity Buzzer
Q253	YF-3220	Digital Multimeter c/w Case Range: AC Volts 200mV-2-20-200-750V DC Volts 200mV-2-20-200-1000V AC Current 2m-20m-200m-10A DC Current 2m-20m-200m-10A Resistance 200-2K-20K 200K-2M-20M- ohm Continuity Buzzer
Q254	TM12E	Digital Clamp Meter Range: AC Volts 400/600 AC Current 400 amps
Q255	TM1016	Digital Camp Meter c/w Thermometer Range: AC Volts 600 AC Current 400 amps
Q256	TM16E	Digital Clamp Meter Range: AC Volts 600 AC Current 600 amps
Q257	YF-8030A	Digital Clamp Meter c/w Case Range: AC Volts 750 DC Volts 750 AC Current 1200 amps DC Current 1200 amps Continuity Buzzer Peak and Data Hold Low battery and over-range display
Q259	Mimic	Universal Remote Controller Compatible with all major manufacturers.



Q254



Q255



Q256

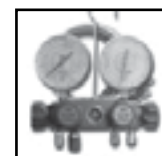
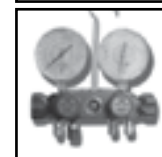
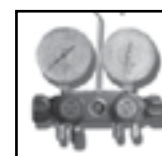
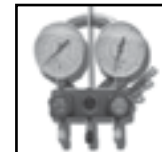
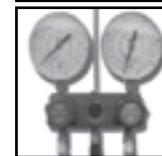
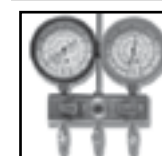


Q257



Manifolds

Code	Model
Q340	BM2-6-DS-R410A Refco Two Way Manifold complete with Sight Glass and 60mm Gauges that read Bar/PSI/°C with scales for R410A Only Supplied with 3 x 36" Charging Lines
Q342	BM2-6-DS-R22 Refco Two Way Manifold complete with Sight Glass 60mm Gauges that read Bar/PSI/°C with scales for R22, R134a, R404A, Supplied with 3 x 36" Charging Lines
Q343	BM2-6-DS-R407C Refco Two Way Manifold complete with Sight Glass and bellow type gauges. Bar/PSI/°C with scales for R407C, R404A, R134a Supplied with 3 x 36" Charging Lines (No Case)
Q344	BM2-6-DS-Clim Refco Two Way Manifold complete with Sight Glass and bourdon type gauges. Bar/PSI/°C with scales for R22, R407C, R410A Supplied with 3 x 36"-1/4" & 2 x 36"- 5/16" Charging Lines and Case.
Q349	2506-049 Two Way Manifold complete with 1/4 Turn Knobs. 80mm gauges protected by rubber boots. Reads Bar/PSI/°C with scales for R22, R134a, R404A, R407C. (No Lines No Case)
Q229	M12AJ5EC CPS Four Way Manifold complete with 3 x 150cm lines fitted with Ball Valves, and 1 x Black High Quality 3/8" Vacuum Hose. Gauges read Bar/PSI/°C with scales for R410A Only Supplied with 3 x 60" Charging Lines and Case
Q230	M2J CPS Two Way Manifold complete with Sight Glass and bourdon type gauges. Bar/°C with scales for R134a/R404A/R407C/R507 (No Lines, No Case)
Q231	M2JS3C CPS Two Way Manifold complete with Sight Glass and bourdon type gauges. Bar/°C with scales for R22, R134a, R404A, R407C Supplied with 3 x 36" Charging Lines and Case
Q232	M4J CPS Four Way Manifold complete with Sight Glass and bourdon type gauges. Bar/°C with scales for R22, R134a, R404A, R407C (No Lines, No Case)
Q233	M4JS5C CPS Four Way Manifold complete with Sight Glass and bourdon type gauges. Bar/°C with scales for R22, R134a, R404A, R407C Supplied with 3 x 60" Charging Lines and Case
Q234	M12AJ5 CPS Four Way Manifold complete with Sight Glass and 80mm gauges Bar/°C with scales for R410A Supplied with 3 x 60" Charging Lines (No Case)



Standard Charging Lines

Code	Model	Colour
1/4" x 36"		
Q365	36-4-B	Blue Line
Q366	36-4-R	Red
Q367	36-4-Y	Yellow
1/4" x 72"		
Q368	72-4-B	Blue Line
Q369	72-4-R	Red
Q370	72-4-Y	Yellow
1/4" x 120"		
Q371	120-4-B	Blue Line
Q372	120-4-R	Red
Q373	120-4-Y	Yellow
Set of 3 x 36" x 1/4"		
Q374	SET-36-4	Red-Yellow-Blue
Set of 3 x 72" x 1/4"		
Q375	SET-72-4	Red-Yellow-Blue
R410A 1/2" (20 UNF) x 60"		
Q396	60-B	Blue Line
Q397	60-R	Red
R410A Set of 3 x 59" - 5/16" Ends		
Q394	SET-R410A	Red-Yellow-Blue



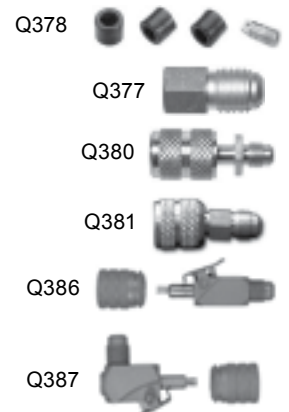
Heavy Duty Lines C/W Ball Valve

Code	Model	Colour
1/4" x 36"		
Q382	HD-36-4-B-V	Black with Blue end
Q383	HD-36-4-R-V	Black with Red end
Q384	HD-36-4-Y-V	Black with Yellow end
1/4" x 60"		
Q388	HD-60-4-B-V	Black with Blue end
Q389	HD-60-4-R-V	Black with Red end
Q390	HD-60-4-Y-V	Black with Yellow end
1/4" x 72"		
Q391	HD-72-4-B-V	Black with Blue end
Q392	HD-72-4-R-V	Black with Red end
Q393	HD-72-4-Y-V	Black with Yellow end
3/8" x 36"		
Q385	HD-36-6-Y-V	Black with Yellow end



Charging Line Spares

Code	Description
Q378	6 Gaskets/3 Lifters for Standard Lines
Q377	R410A Flare Adaptor 1/4" F/FL to 5/16" M/FL
Q380	10292 Adapter to convert Standard 1/4" Lines to Auto Shut-Off.
Q381	R410A Flare Adaptor 1/4" M/FL to 5/16" F/FL
Q386	Straight Quick Coupler. Converts 1/4" Lines to R410A
Q387	Elbow Quick Coupler. Converts 1/4" Lines to R410A



Gauges

Code	Model	Scale	Connections
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80mm Pulse Free

Scales for R12/22/502

Q360	825BPC	-1 to 8 Bar/°C	1/8" NPT
Q361	823BPC	0 to 31 Bar/°C	1/8" NPT

80 mm Pulse Free

Scales for R134a/R404A/R407C/R507

Q362	825BC/447	-1 to 8 Bar/°C	1/8" NPT
Q363	823BC/447	0 to 31 Bar/°C	1/8" NPT

70 mm Pulse Free

Scales for R22//134a

Q265	2604-077	-1 to 17 Bar	1/8" NPT
Q267	2604-078	0 to 34 Bar	1/8" NPT

80mm Pulse Free

Scales for R22//134a/R404A/R407C

Q266	2604-072	-1 to 17 Bar	1/8" NPT
Q268	2604-073	0 to 34 Bar	1/8" NPT

80mm Pulse Free-Class 1.6 Bourdon

Scales for R22/404A/134a/407C

Q227	RGJL	-1 to 17 Bar	1/8" NPT
Q228	RGJH	0 to 34 Bar	1/8" NPT

80mm Pulse Free-Class 1.6

Scales for R22/404A/134a/407C

Q300	PF80/15R1/A6	-1 to +15 bar	1/8 NPT Bottom
Q302	PF80/35R1/A6	-1 to +35 bar	1/8 NPT Bottom

80mm Pulse Free-Class 1.6

Scales for R600a

Q304	PF80/3R1/A3	-1 to +3 bar	1/8 NPT Bottom
Q306	PF80/9R1/A3	-1 to +9 bar	1/8 NPT Bottom

80mm Pulse Free-Class 1.6

Scales for R410A

Q308	PF80/38R1/A4	-1 to +38 bar	1/8 NPT Bottom
Q310	PF80/53R1/A4	-1 to +53 bar	1/8 NPT Bottom



Rear Flange Gauges

Code	Model	Scale	Connections
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60mm Oil filled-Class 1.6

Scales for R22/404A/134a/407C

Q312	ML60/18R4FP/A8	-1 to +18 bar	1/4" flare-Bottom
Q314	ML60/38R4FP/A8	-1 to +38 bar	1/4" flare-Bottom

Without Refrigerant Scales

Q316	ML60/18R4FP/U	-1 to +18 bar	1/4" flare-Bottom
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Helpful Note:

100 kPa = 1 Bar = 14.5038 lb.f/sq. inch = 0 p.s.i. Gauge

Front Flange Gauges

Code	Model	Scale	Connections
60mm oil filled-Class 1.6			
Scales for R22/404A/134a/407C			
Q318	ML60/18C4FA/A8	-1 to +18 Bar	1/4" flare-Rear
Q320	ML60/38C4FA/A8	-1 to +38 Bar	1/4" flare-Rear

Q318



Q322



Without Refrigerant Scales

Q322	ML60/18C4FA/U	-1 to +18 Bar	1/4" flare-Rear
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Vacuum Gauges

Code	Model	LIST PRICE
Q276	CR-2-40 Torr Gauge 0/40 4" Dia. Surface Mounting Barometrically compensated	£ 299.20
Q277	WIVPF80/4 0-1000 mbar Vacuum gauge on two way manifold	60.02
Q278	VG60 Electronic Gauge 10 colour coded LED readout down to 50 microns	158.40
Q279	VG64 Electronic Gauge Digital Readout 0 to 12,000 microns	181.50

Q276



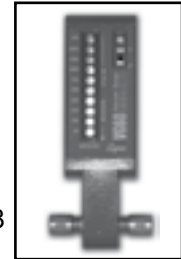
Q277



Q279



Q278



Understanding Vacuum

Boiling point of Water °C	Vacuum Inches of HG	Vacuum Microns	Pressure psi
100	0.00	759968	14.696
70	20.72	233680	4.519
30	28.67	31750	0.614
20	29.22	17760	0.344
0	29.74	4572	0.088
-14.4	29.87	1270	0.0245
-37.2	29.915	127	0.00245
-56.7	29.9195	12.7	0.00024
-67.8	29.9199	2.54	0.000049

Automotive Quick Couplers

Couplers according to SAE J2197 for Automotive compressors.
Connection 14mm female, with an adaptor to suit standard 1/4 flare charging lines.

Code	Model	Application
Q520	254-A	Low Side Coupler
Q521	253-A	High Side



KWIK-CHARGE

Device to speed up charging by allowing liquid refrigerant to be charged into the suction side of the system, without damaging the compressor. Invaluable as many of the new refrigerants must be charged as a liquid to prevent separation. 1/4 female flare inlet and 1/4 male flare outlet.
Can be fitted directly onto a manifold.

Code	Model	
Q295	536-C16	Kwik-Charge



Robinair Vacuum Pumps

The following Vacu-Master Vacuum Pumps from Robinair are 240v only and offer a high performance at a very competitive price.

Single Stage - 240 Volt

Code	Model	Swept Volume	Supply	Weight
Q243	15301	71 l/min (3.0 cfm)	240v	10.0 kgs
Q244	15501	118 l/min (5.0 cfm)	240v	12.5 kgs



Two Stage Dual Wired Pumps

A quality Dual Voltage Robinair Vacuum Pump, that you can alter the wiring to suit either 110 or 240 Volt.

Two Stage Dual Voltage - Switchable 110/240 Volt

Code	Model	Swept Volume	Supply	Weight
Q247	15401	112 l/min (3.3 cfm)	110/230v	12.0 kgs
Q248	15601	168 l/min (5.0 cfm)	110/230v	12.0 kgs
Q249	15121A	280 l/min (8.0 cfm)	110/230v	17.24 kgs



Vacuum Pump Oil

Vacuum pump oil is the lifeblood of any pump. Pump oil should be changed very regularly, especially after evacuating a contaminated system.

Some pump manufactures recommend changing the oil after every job!

All the contaminates in the system end up in the pump oil, including water and acidic compressor oil. Clean oil is the cheapest insurance against breakdown and ineffective pumping. When vacuum pump oil is dirty it gives off its own vapours, reducing the pumps capacity and ultimate vacuum.

Code	Description
Q202	1 Quart Vacuum Pump Oil
Q203	1 Gallon



ITE Electronic Charging Scales

Electronic Charging and Recovery Scales.
Clear LCD readout.
Battery powered. Approx. 60 hours battery life (PP3).
Supplied in a tough ABS plastic case.

Code	Model
Q286	WS-120 Electronic Scales Resolution 0.02 kg Maximum Capacity 120 kg
Q289	WS-055 Electronic Scales Resolution 0.05g selectable 0.02g Maximum Capacity 55 kg



Refco Electronic Charging Scales

Electronic Charging and Recovery Scales.
Clear LCD readout. Battery powered.
(Approx. 30 hours battery life (4 x AAA).
Supplied with laptop style carry case.

Code	Model
Q285	4665657 Ref-Meter Resolution 0.02 kg Maximum Capacity 100 kg



Mastercool Electronic Charging Scales

Electronic Charging and Recovery Scales.
Clear LCD readout.
Battery powered. Approx. 40 hours battery life (PP3).
Supplied in a tough ABS plastic case.

Code	Model
Q290	98210-A Resolution 0.01 kg Maximum Capacity 110 kg



Nitrogen Test Kit

Nitrogen Testing Kit comes complete with a heavy duty nitrogen regulator (48 bar) complete with 1/4" SAE flare connection. The 80mm gauge displays maximum test pressures, maximum purging pressure and maximum flushing pressure for R410A, 134a, R404A, R407C, R507C and R22. The kit also includes a built in shut off valve, 900mm 1/4" SAE hose, 950cc nitrogen cylinder (including adaptor) ideal for auto a/c and service cabinets etc. Also includes a 1/4" male flare x 5/16" female flare adaptor for R410A. Supplied in a good quality plastic carrying case with foam protection.

Please Note: The Nitrogen Bottle MUST NOT be refilled.

Code	Model	
Q291	KAZ200-50/BNZE	Test Kit
Q292	BNZ/1-TPED	950cc Nitrogen Bottle



Mini-Max Recovery Machines



Code	Model
Q500	Mini/Max Portable Recovery Machine 240 Volt Suitable for HFC, CFC and HCFC including R410A Voltage: 240 V
Recovery Rate:	Liquid : upto 50 kgs/hr Vapour: upto 17 kgs/hr
Push/Pull method	Liquid: 240 kgs/hr
Dimensions:	Height: 280 mm Width: 229 mm Depth: 432 mm Weight: 14 kgs



Q501	Mini/Max Portable Recovery Machine 110 Volt Suitable for HFC, CFC and HCFC. Voltage: 110 V
Recovery Rate:	Liquid : upto 50 kgs/hr Vapour: upto 17 kgs/hr
Push/Pull method	Liquid: 240 kgs/hr
Dimensions:	Height: 280 mm Width: 229 mm Depth: 432 mm Weight: 14 kgs



Promax Recovery Machines

Code	Model
Q498	Promax RG5410A Portable Recovery Machine 240 Volt Suitable for HFC, CFC and HCFC including R410A Voltage: 240 V
Recovery Rate:	Liquid : upto 80 kgs/hr Vapour: upto 33 kgs/hr
Push/Pull method	Liquid: 380 kgs/hr
Dimensions:	Height: 343 mm Width: 229 mm Depth: 483 mm Weight: 16 kgs



Q499	Promax RG5410A Portable Recovery Machine 110 Volt Suitable for HFC, CFC and HCFC. Voltage: 110 V
Recovery Rate:	Liquid : upto 80 kgs/hr Vapour: upto 33 kgs/hr
Push/Pull method	Liquid: 380 kgs/hr
Dimensions:	Height: 343 mm Width: 229 mm Depth: 483 mm Weight: 16kgs



"I make a point of cleaning my client's coils **properly** as part of my regular service visit."



Sooner or later, the coils will need cleaning

Worldwide, more ACR professionals use Advanced Coil Cleaners than any other. Here's why...

World class products

No manufacturer goes further to offer precisely the right product for every ACR application. Our quest for total customer satisfaction means we are always striving to improve even our most popular products.

Exclusive technology

Our dedicated research centre leads the world in developing breakthrough developments in ACR maintenance. Take CX-60® – the exclusive disinfectant formula in many Advanced products which kills 99.9% of air conditioning's most notorious bugs in 60 seconds dead. Within a minute, CX-60® gives your customers total peace of mind that their system cannot spread diseases.

Expert technical advice

Our decades of coil cleaning experience are only ever a phone call away. With hundreds of products to choose from, our technical staff offer free, unlimited advice on exactly what solution to use and how, keeping your engineers on top of their game.

Essential tools of the trade...



Indoors
Condenside®

Alkaline evaporator cleaner and disinfectant with CX-60® kills harmful flora for instant protection against smells and diseases.



Outdoors
SuperClean™

Heavy duty, non acid foaming condenser cleaner. Without doubt the most powerful cleaner on the market today – but won't damage your coil.



Universal
EnviroCoil®

Environmentally friendly coil cleaner that can be used safely on indoor evaporators and outdoor condensers alike. Perfect for regular service visits.

If it's not Advanced, you're behind

Advanced Engineering Ltd
T: 01755 400100
sales@advancedengineering.co.uk
www.advancedengineering.co.uk

advanced
engineering

For our range of Chemicals from Advanced Engineering - Please see pages 113 to 115

Service Cylinder

10 kgs Service Cylinder with dual port and dual valve access.
Suitable for use as a refrigerant reclaim cylinder.

Code **Size**
Q505 12 ltr Service Cylinder



Valve Opening Magnet

The Solenoid Valve Opening Magnet suits all makes of solenoid valve with a 15 mm diameter stem i.e. Danfoss, Sporlan, Scem, Honeywell and Johnson.

The SV-OM will manually open solenoid valves when there is no mains power available. This can be very useful when commissioning or reclaiming a refrigerant.

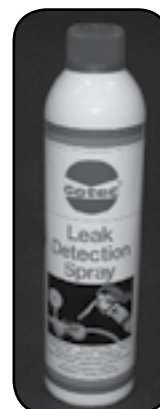
Code **Size**
Q508 SV-OM Magnet



Leak Detector Spray

Ready for use, will locate the smallest leak in refrigerant, gas or compressed air systems.
Operating range: LDS 0 Deg.C to +50 Deg.C
 LT45 -45 Deg.C to +50 Deg.C

Code **Type**
Q145 Gotec LDS Aerosol
Q146 Gotec LT45 Aerosol



Leak Locator

Gas Leak Locator with fluorescent dye to enhance leak detection. Non freezing high viscosity formula.

Code **Type**
Q150 GL-6 .25 Litre Leak Locator



Electronic Leak Detectors

- | Code | Model |
|-------------|--|
| Q493 | <p>TEK-Mate Leak Detector</p> <p>Heated Diode Sensor</p> <p>Sensitive to HFC, CFC and HCFC refrigerants.</p> <p>Super sensitive: leak rate 11 grams per year.</p> <p>High efficiency positive displacement pump</p> <p>Audible alarm and flashing LED</p> <p>Carrying Case</p> |
| Q494 | <p>D TEK (Professional) Leak Detector</p> <p>Heated Diode Sensor</p> <p>Sensitive to HFC, CFC and HCFC refrigerants.</p> <p>Rechargeable Ni-cad battery</p> <p>12 v DC in car charger</p> <p>230 v Mains charger</p> <p>Super sensitive: leak rate 11 grams per year.</p> <p>High efficiency positive displacement pump</p> <p>Audible alarm and flashing LED</p> <p>Carrying Case</p> |
| Q495 | Replacement Sensor for TEK-Mate & D TEK |
| Q496 | Replacement Filters for TEK-Mate |
| Q497 | Replacement Filters for D TEK |



UV-Fluorescent Leak Detectors

SPECTROLINE®

Finds refrigerant leaks undetectable by other methods.

Add fluorescent dye to the refrigeration system and allow to circulate.
In the event of a leak, the dye escapes with the system's refrigerant and remains at all leak sites.

Scan the system with a Spectroline UV/Blue Inspection Lamp – the dye will fluoresce to pinpoint the exact source of the leak.

Code Model

Q552

Optimax Junior Complete Starter Kit

Consists of:

Cordless Lamp powered by 3 x AA batteries (included) will keep the high-intensity, 100,000-hour LED bulb at peak performance for over half a day's continuous use.

EZ-Ject dye injector kit

2 x EZ-4/ECS dye Cartridges

Carrying case and sample of cleaner

UVS-40 Spectacles



Q553

Optimax Pro-Complete Kit

Consists of:

14.5 volt U.V. Lamp capable of pinpointing the tiniest leaks up to 6M (20 ft) away.

Big EZ injector kit

BEZ-200/E Dye

Carrying case and sample of cleaner.

UVS-40 Spectacles



Dye Cartridges

Code Model

To suit - Optimax Junior Kit

Q554 EZ-4/E Cartridge treats upto 11.3 kg of refrigerant

To suit - Optimax Pro-Complete Kit

Q550 BEZ-2/ECS Cartridge treats upto 70 kgs of refrigerant

Q551 BEZ-4/ECS Cartridge treats upto 180 kgs of refrigerant



Q554



Q550

Accessories

Code Model

Q555

UVS-40 Spectacles



SPECTROLINE®

Glo Stick Capsules

The following Glo Stick Capsules are for use with Spectroline HVLD-80 and TLK100 Leak Detection Kits.

Glo Stick Capsules contain AR-GLO and eliminate the need for additive filling and venting. AR-GLO is proven safe and effective. It works in any size AC & R system and is compatible with all commonly used refrigerants and refrigerant blends employing mineral oil, ester oil, alkylbenzene or PAG lubricants.

Different size glo sticks are available for various refrigerant charges.

Several sticks can be used for larger systems.

The ester glo sticks may be used in mineral or alkylbenzene oil systems and therefore are the most suitable for van stock.

Not Suitable for use with EZ-Ject or Big EZ-injection systems.

Code Model

Mineral Oil

Q560	GS-101 Capsule
Q561	GS-1
Q562	GS-2
Q563	GS-3

Ester Oil

Q565	GS-101/E Capsule
Q566	GS-1/E
Q567	GS-2/E
Q568	GS-3/E

PAG Oil

Q569	GS-101/PAG Capsule
Q570	GS-1/PAG

Alkylbenzene Oil

Q574	GS-1/LT
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SPECTROLINE®



The following table gives an approximate guide to Glo Stick Capacity. Multiple Glo Sticks can be used in larger systems.

Capsule	Refrigerant Charge Kgs	Oil Charge Litres
GS-101	Up to 1.3	Up to 0.4
GS-1	1.4 to 2.2	0.5 to 1.5
GS-2	2.3 to 4.5	1.6 to 3.0
GS-3	4.6 to 11.3	3.1 to 7.6

SPECTROLINE®

Turbo Torch Brazing Kits

Brazing Kits

- Q452** TX504 Extreme Turbo Torch
(Piezo ignition)
- Q454** STK-9 Kit with regulator
and ST-3 Burner
- Q455** STK-11 Double Barrel Burner

Turbo Snake

- Q456** Manual Lite Turbo snake
- Q457** Self Lite Turbo Snake

TurboTorch®



Mapp Gas Cylinders
not included



Turbo Torch Refills

- | Code | Type |
|-------------|------------------------|
| Q465 | PT-1 Butane (Red) |
| Q466 | MT-1 Mapp gas (Yellow) |



Turbo 90 Brazing Kit

An Oxygen/Maxi Gas Brazing Kit capable of temperatures up to 3000 degrees centigrade. Both the oxygen and maxi gas are supplied in non returnable canisters.

- | Code | Model |
|-------------|-------------------------------|
| Q530 | Turbo 90 Brazing Kit |
| Q532 | Oxygen Refill for Turbo 90 |
| Q533 | Maxy Gas Refill for Turbo 90 |
| Q534 | Oxygen Regulator |
| Q535 | Propane Regulator |
| Q536 | Oxygen Check Valve |
| Q537 | Propane Check Valve |
| Q538 | Hand Grip |
| Q539 | Oxygen Hose with Check Valve |
| Q540 | Propane Hose with Check Valve |
| Q541 | Welding Head |



Flametech Pro Brazing Kit

A small portable brazing kit which includes; oxygen cylinder, mapp gas cylinder; high quality portable metal stand, two gauge oxygen regulator; mapp gas regulator; cylinder extension; oxygen and fuel gas flashback arrestors; brazing torch and mixer; 5M oxygen/acetylene hose and one of each No 10 and No 13 Nozzles.

When you return your empty cylinder it can be exchanged for a refill cylinder (Q526) at £33.50 List. Should a cylinder not be returned for exchange a spare cylinder (Q527) will be invoiced.

- | Code | Model |
|-------------|---|
| Q525 | Flametech Pro Brazing Kit |
| Q526 | Oxygen Refill for Flametech Pro |
| Q527 | Spare Oxygen Cylinder for Flametech Pro |



Blaze Barrier Cloth

Protects walls, floors, equipment, components and adjacent surfaces when soldering, brazing or welding. Asbestos free. All cloths have edges taped and sewn with grommets at each corner. Highly resistant to many chemicals and acids.

Will withstand heat up to 3000 °F

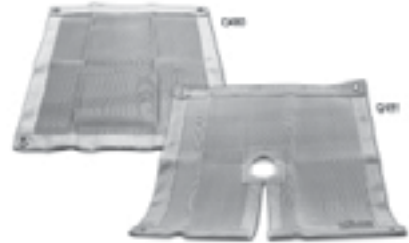
Code

Q480

18" x 18" Plain Barrier Cloth

Q481

18" x 18" Keyhole cutout for
Draping over pipes and tubes



Turbo Brazing Mat

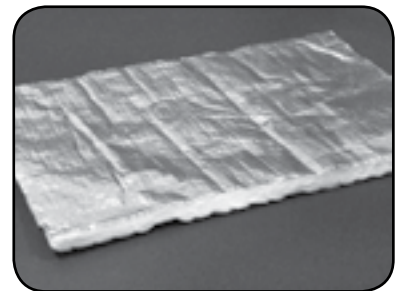
Asbestos free brazing mat.

Will withstand heat up to 1832 °F

Code

Q479

12" x 7-1/2" Brazing Mat



Pyrocool Gel

Pyrocool gel is a colourless, odourless gel that protects all surfaces during soldering, brazing or welding. It protects existing joints from heat transfer effects. Optimal consistency; sticks to most surfaces. Reduces the risk of damage to sensitive parts. Dissipates heat and reduces the risk of fire. Can be used on Copper, Steel and Aluminium pipe work and is non corrosive.

Code

Q485

Pyrocool Gel 1 litre



Abrasive Products

Abrasive products for cleaning tube and fittings prior to brazing.

Code

Q632

Type

Cleanfit Strips 200 x 40 mm (Pack of 10)
Waterproof, Open Nylon Mesh

Q633

Cleanfit 4.6M Roll
Silicon Carbide on a roll



Evaporator Repair Kits

Code

Q645

Type

DP-2 Epoxee Repair Kit

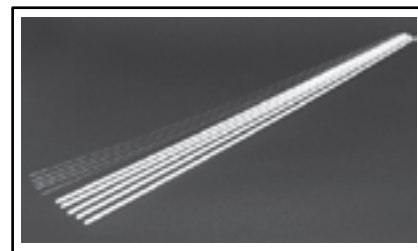
Q647

Heat Seal Stick



Silver Solder

Code	Style	Quantity
40% Cadmium free Silver Alloy		
Q680	440 1.5 mm	5 sticks
Q681	440 2.4	5 sticks
Q682	440 1.5 mm	0.5 kilo
Q683	440 2.4	0.5 kilo
40% Cadmium free Silver Alloy Flux Coated		
Q684	440F 2.0 mm	5 sticks
Q685	440F 2.0	0.5 kilo
56% Cadmium free Silver Alloy		
Q686	455 1.5	5 sticks
Q687	455 2.4	5 sticks
Q689	455 2.4	0.5 kilo
56% Cadmium free Silver Alloy Flux Coated		
Q690	455F 2.0 mm	5 sticks
Q691	455F 2.0	0.5 kilo
Flux Powder		
Q693	Flux Powder	250 gram



Brazing Alloys

Code	Style	Quantity
Copper Phosphorus Alloy		
Q800	CUP-7 1.5 mm	10 sticks
Q801	CUP-7 2.5 mm	10 sticks
Q802	CUP-7 3.0 mm	10 sticks
Q803	CUP-7 1.5 mm	1 kilo
Q805	CUP-7 2.5 mm	1 kilo
Q806	CUP-7 2.5	5 kilo
Q808	CUP-7 2.0 mm Square	0.5 kilo
Q775	Phoson 3.2 mm x 1.5mm Flat	27 sticks
Copper Phosphorus Alloy with 2% Ag		
Q810	Ag2P 1.5 mm	10 sticks
Q811	Ag2P 2.5	10 sticks
Q812	Ag2P 3.0	10 sticks
Q814	Rolot Rothenberger S2	1 kilo
Q824	Ag2P 2.5 mm	1 kilo
Q815	Ag2P 2.5	2.5 kilo
Copper Phosphorus Alloy with 6% Ag		
Q820	Ag6PN 1.5 mm	10 sticks
Q821	Ag6PN 2.5	10 sticks
Q822	Ag6PN 3.0	10 sticks
Q825	Ag6PN 2.5 mm	1 kilo
Copper Phosphorus Alloy with 15% Ag		
Q827	Ag15P 1.5 mm	5 sticks
Q828	Ag15P 2.5	5 sticks
Q829	Ag15P 3.0	5 sticks



TurboTorch SF-1 SilverFlo

Substitute for 2%-15% silver content brazing alloys. For copper tubing installations. Self fluxing on copper.

Code
Q830

Description
Silverflow Solder (SF-1)



Brazing Alloys

TYPE	% Ag	Temp Deg.C	Max Strength N/mm Square	Application and Use
CUP-7	0	710/810	494	Suitable for joining Cu to Cu where ductility is not of prime consideration.
Phoson	0	644/652	470	Suitable for joining Cu to Cu and designed for repairs of leaks where it can be used without adversely affecting joints.
Ag2P	2	644/825	432	A silver alloy offering both capillary action and gap filling ability.
S2	2	650/810	245	Particularly suitable for gap and joint soldering in copper tube.
Ag6PN	6	644/718	476	Extremely fluid alloys for penetration of tight joints with the addition of pure silver, to further enhance fluidity.
Ag15P	15	644/800	655	This alloy has the highest ductility in the Cu/P range and is free flowing. It is mostly used for gap filling and for joints subjected to excessive vibration and stress.
440 Cd free Ag	40	650/710	432	A cadmium free high silver alloy containing Copper, Zinc and Tin. Recommended for use on ferrous metals, stainless steel, copper and brass.
440F Cd free Ag	40	650/710	432	A flux coated version of the above.
455 Cd free Ag	56	620/650	490	A high silver bearing cadmium free alloy. Offers excellent fluidity and capillary penetration at low temperatures. Recommended for use on ferrous metals, stainless steel, copper and brass.
455F Cd free Ag	56	620/650	490	A flux coated version of the above.
Flux	-	550/850	-	A powder flux for use with silver brazing alloys that ensures a continual uniform film of flux over the surface when heated.

PLEASE NOTE:

Cu/P alloys are not recommended for joining ferrous metals because of the formation of brittle intermetallics at the interface which can lead to cracking and subsequent failure. They are also not recommended where the joints made are subject to a temperature in excess of 200 Deg.C.

Whirlpool Ice Machines

Whirlpool ice machines offer an economical and reliable solution to ice production. Spare parts are readily available and the machines design allows for easy access to the water pump, cutter grid and spray arms. The K20 machine produces 24 Kg per 24 hours with a storage capacity of 10 kgs. The K40 produces 40 Kg of ice with a storage capacity of 20 Kg.



Dimensions:

K20 (H) 590mm x (W) 555mm x (D) 535mm

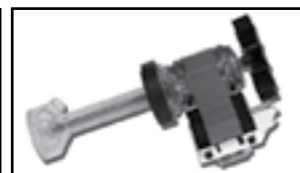
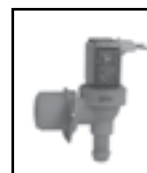
K40 (H) 850mm x (W) 555mm x (D) 535mm

Code	Description
T200	K20 Ice Machine
T202	K40 Ice Machine

Ice Machine Spares

For Phillips, Whirlpool and Ignis ice machines. Spares for other makes are available to order.

Code	Description
T240	Ice Machine Stand to suit K20/K40
T250	Water Pump (See Note Below)
T252	Cutting Grid
T254	Bin Thermostat
T256	Thickness Thermostat
T258	Hot Gas Coil (Large)
T259	Hot Gas Coil (Small)
T260	Hot Gas Coil (ODE) New
T261	Hot Gas Valve (Complete)
T265	Inlet Valve for K20
T266	Inlet Valve for K40
T267	Drain Hose
T248	K20/40 Gasket Seal
T249	K40 Microswitch Arm
T268	K20/40 Spray Bar
T269	K20/40 Drain Tee (Internal)
T270	K20/40 Green Switch
T271	K20/40 Blue Switch
T272	Drain Hose



Note: The twelve month warranty on this pump will be invalid if it becomes seized due to cleaning maintenance not being carried out on a regular basis.

Everpure Water Filters

The Everpure "H" series filters have been designed for use with ice machines, hot drink and coffee machines where the appliance are susceptible to scale formation. The filters remove all impurities as small as 0.5 micron and eliminates all off-tastes and odours such as chlorine. Two heads are stocked the QL2 and the QL3B. Both units are supplied suitable for wall mounting and have 3/8" NPT inlet and outlet ports. The QL3B has an integral shut off valve.

Code	Description	Rated Flow
T280	AH Filter	1.9 l/min (2840 ltr)
T282	4H Filter	1.9 l/min (5768 ltr)
T284	MH Filter	6.3 l/min (34000 ltr)
T288	QL2 Head	
T290	QL3B Head	

EVERPURE
WATER YOU CAN TRUST®



* () Rated capacity for taste odour & chlorine reduction

Temperature conversion table

Listed in the centre column are the degrees to be converted. To convert into degrees Centigrade, refer to left column, to convert into Fahrenheit, refer to right column, e.g.: -25°C = -13°F, or -25°F = -31,7°C

°C	↔	°F	°C	↔	°F	°C	↔	°F	°C	↔	°F	°C	↔	°F
-101	-150	-238	-19,4	-3	+26,6	+12,2	+54	+129,2	+43,9	+111	+231,8	+75,6	+168	+334,4
-95,6	-140	-220	-18,9	-2	+28,4	+12,8	+55	+131,0	+44,4	+112	+233,6	+76,1	+169	+336,2
-90,0	-130	-202	-18,3	-1	+30,2	+13,3	+56	+132,8	+45,0	+113	+235,4	+76,7	+170	+338,0
-84,4	-120	-184	-17,8	±0	+32,0	+13,9	+57	+134,6	+45,6	+114	+237,2	+77,2	+171	+339,8
-78,9	-110	-166	-17,2	+1	+33,8	+14,4	+58	+136,4	+46,1	+115	+239,0	+77,8	+172	+341,6
-73,3	-100	-148	-16,7	+2	+35,6	+15,0	+59	+138,2	+46,7	+116	+240,8	+78,3	+173	+343,4
-67,8	-90	-130	-16,1	+3	+37,4	+15,6	+60	+140,0	+47,2	+117	+242,6	+78,9	+174	+345,2
-62,2	-80	-112	-15,6	+4	+39,2	+16,1	+61	+141,8	+47,8	+118	+244,4	+79,4	+175	+347,0
-56,7	-70	-94	-15,0	+5	+41,0	+16,7	+62	+143,6	+48,3	+119	+246,2	+80,0	+176	+348,8
-51,1	-60	-76	-14,4	+6	+42,8	+17,2	+63	+145,4	+48,9	+120	+248,0	+80,6	+177	+350,6
-45,6	-50	-58,0	-13,9	+7	+44,6	+17,8	+64	+147,2	+49,4	+121	+249,8	+81,1	+178	+352,4
-45,0	-49	-56,2	-13,3	+8	+46,4	+18,3	+65	+149,0	+50,0	+122	+251,6	+81,7	+179	+354,2
-44,4	-48	-54,4	-12,8	+9	+48,2	+18,9	+66	+150,8	+50,6	+123	+253,4	+82,2	+180	+356,0
-43,9	-47	-52,6	-12,2	+10	+50,0	+19,4	+67	+152,6	+51,1	+124	+255,2	+82,8	+181	+357,8
-43,3	-46	-50,8	-11,7	+11	+51,8	+20,0	+68	+154,4	+51,7	+125	+257,0	+83,3	+182	+359,6
-42,8	-45	-49,0	-11,1	+12	+53,6	+20,6	+69	+156,2	+52,2	+126	+258,8	+83,9	+183	+361,4
-42,2	-44	-47,2	-10,6	+13	+55,4	+21,1	+70	+158,0	+52,8	+127	+260,6	+84,4	+184	+363,2
-41,7	-43	-45,4	-10,0	+14	+57,2	+21,7	+71	+159,8	+53,3	+128	+262,4	+85,0	+185	+365,0
-41,1	-42	-43,6	-9,4	+15	+59,0	+22,2	+72	+161,6	+53,9	+129	+264,2	+85,6	+186	+366,8
-40,6	-41	-41,8	-8,9	+16	+60,8	+22,8	+73	+163,4	+54,4	+130	+266,0	+86,1	+187	+368,6
-40,0	-40	-40,0	-8,3	+17	+62,6	+23,3	+74	+165,2	+55,0	+131	+267,8	+86,7	+188	+370,4
-39,4	-39	-38,2	-7,8	+18	+64,4	+23,9	+75	+167,0	+55,6	+132	+269,6	+87,2	+189	+372,2
-38,9	-38	-36,4	-7,2	+19	+66,2	+24,4	+76	+168,8	+56,1	+133	+271,4	+87,8	+190	+374,0
-38,3	-37	-34,6	-6,7	+20	+68,0	+25,0	+77	+170,6	+56,7	+134	+273,2	+88,3	+191	+375,8
-37,8	-36	-32,8	-6,1	+21	+69,8	+25,6	+78	+172,4	+57,2	+135	+275,0	+88,9	+192	+377,6
-37,2	-35	-31,0	-5,6	+22	+71,6	+26,1	+79	+174,2	+57,8	+136	+276,8	+89,4	+193	+379,4
-36,7	-34	-29,2	-5,0	+23	+73,4	+26,7	+80	+176,0	+58,3	+137	+278,6	+90,0	+194	+381,2
-36,1	-33	-27,4	-4,4	+24	+75,2	+27,2	+81	+177,8	+58,9	+138	+280,4	+90,6	+195	+383,0
-35,6	-32	-25,6	-3,9	+25	+77,0	+27,8	+82	+179,6	+59,4	+139	+282,2	+91,1	+196	+384,8
-35,0	-31	-23,8	-3,3	+26	+78,8	+28,3	+83	+181,4	+60,0	+140	+284,0	+91,7	+197	+386,6
-34,4	-30	-22,0	-2,8	+27	+80,6	+28,9	+84	+183,2	+60,6	+141	+285,8	+92,2	+198	+388,4
-33,9	-29	-20,2	-2,2	+28	+82,4	+29,4	+85	+185,0	+61,1	+142	+287,6	+92,8	+199	+390,2
-33,3	-28	-18,4	-1,7	+29	+84,2	+30,0	+86	+186,8	+61,7	+143	+289,4	+93,3	+200	+392,0
-32,8	-27	-16,6	-1,1	+30	+86,0	+30,6	+87	+188,6	+62,2	+144	+291,2	+93,9	+201	+393,8
-32,2	-26	-14,8	-0,6	+31	+87,8	+31,1	+88	+190,4	+62,8	+145	+293,0	+94,4	+202	+395,6
-31,7	-25	-13,0	±0	+32	+89,6	+31,7	+89	+192,2	+63,3	+146	+294,8	+95,0	+203	+397,4
-31,1	-24	-11,2	+0,6	+33	+91,4	+32,2	+90	+194,0	+63,9	+147	+296,6	+95,6	+204	+399,2
-30,6	-23	-9,4	+1,1	+34	+93,2	+32,8	+91	+195,8	+64,4	+148	+298,4	+96,1	+205	+401,0
-30,0	-22	-7,6	+1,7	+35	+95,0	+33,3	+92	+197,6	+65,0	+149	+300,2	+96,7	+206	+402,8
-29,4	-21	-5,8	+2,2	+36	+96,8	+33,9	+93	+199,4	+65,6	+150	+302,0	+97,2	+207	+404,6
-28,9	-20	-4,0	+2,8	+37	+98,6	+34,4	+94	+201,2	+66,1	+151	+303,8	+97,8	+208	+406,4
-28,3	-19	-2,2	+3,3	+38	+100,4	+35,0	+95	+203,0	+66,7	+152	+305,6	+98,3	+209	+408,2
-27,8	-18	-0,4	+3,9	+39	+102,2	+35,6	+96	+204,8	+67,2	+153	+307,4	+98,9	+210	+410,0
-27,2	-17	+1,4	+4,4	+40	+104,0	+36,1	+97	+206,6	+67,8	+154	+309,2	+99,4	+211	+411,8
-26,7	-16	+3,2	+5,0	+41	+105,8	+36,7	+98	+208,4	+68,3	+155	+311,0	+100,0	+212	+413,6
-26,1	-15	+5,0	+5,6	+42	+107,6	+37,2	+99	+210,2	+68,9	+156	+312,8			
-25,6	-14	+6,8	+6,1	+43	+109,4	+37,8	+100	+212,0	+69,4	+157	+314,6	Conversion of single degrees		
-25,0	-13	+8,6	+6,7	+44	+111,2	+38,3	+101	+213,8	+70,0	+158	+316,4			
-24,4	-12	+10,4	+7,2	+45	+113,0	+38,9	+102	+215,6	+70,6	+159	+318,2	0,56	1	1,8
-23,9	-11	+12,2	+7,8	+46	+114,8	+39,4	+103	+217,4	+71,1	+160	+320,0	1,11	2	3,6
-23,3	-10	+14,0	+8,3	+47	+116,6	+40,0	+104	+219,2	+71,7	+161	+321,8	1,67	3	5,4
-22,8	-9	+15,8	+8,9	+48	+118,4	+40,6	+105	+221,0	+72,2	+162	+323,6	2,22	4	7,2
-22,2	-8	+17,6	+9,4	+49	+120,2	+41,1	+106	+222,8	+72,8	+163	+325,4	2,78	5	9,0
-21,7	-7	+19,4	+10,0	+50	+122,0	+41,7	+107	+224,6	+73,3	+164	+327,2	3,33	6	10,8
-21,1	-6	+21,2	+10,6	+51	+123,8	+42,2	+108	+226,4	+73,9	+165	+329,0	3,89	7	12,6
-20,6	-5	+23,0	+11,1	+52	+125,6	+42,8	+109	+228,2	+74,4	+166	+330,8	4,44	8	14,4
-20,0	-4	+24,8	+11,7	+53	+127,4	+43,3	+110	+230,0	+75,0	+167	+332,6	5,00	9	16,2

Conversion Factors

Imperial	Metric	Imperial to Metric X	Metric to Imperial X
Inches	Millimetres	25.4000	0.0394
Feet	Metres	0.3048	3.2808
Sq. feet	Sq. metres	0.0929	10.7639
Cu. Inches	Cu. c.m.	16.3871	0.0610
Cu. feet	Cu. metres	0.0283	35.3148
Gallons	Litres	4.5461	0.21994
Pounds	Kilograms	0.4536	2.2046
Tons	Tonnes	1.0160	0.9842
Gals/min.	Cu. m/hr	0.2728	3.6662
Cu. ft/min.	Litres/Sec	0.4719	2.1190
Feet/Sec.	Metres/Sec	0.3048	3.2808
1. Kilowatt	= 1.34 horsepower. = 56.9 BTU/minute.		
1. imp. Gallon	= 4.54 litre (kilo)		
1. cu. m. water	= 1000 litre (kilo)		
1. cu. ft. water	= 28.4 litre (kilo)		
1. bar	= 14.5038 lb.f./in sq. = 100 k.Pa.		
1 Btu	= 1.05506 k.J.		
1 Btu/h.	= 0.293 W.		
1. W	= 3.412 Btu/h.		
1 °C	= 1.8 °F		
1 °F	= 0.56 °C		

Refrigerant Reference Guide

Temp °C	Vapour pressure - psig ("Hg)					
	R12	R134a	R22	R502	R403b (69L)	R404A
-50	(18.4)	(21.2)	(10.9)	(5.9)	0.4	(5.7)
-45	(15.0)	(18.4)	(5.5)	0.3	4.2	0.5
-40	(11.0)	(14.8)	0.5	4.1	8.6	4.5
-35	(6.1)	(10.4)	4.4	8.6	13.8	9.3
-30	(0.3)	(5.0)	9.0	14.0	19.9	14.9
-25	3.2	0.7	14.3	20.2	27.0	21.5
-20	7.2	4.5	20.8	27.5	35.2	29.1
-15	11.8	9.1	28.2	35.9	44.5	37.9
-10	17.1	14.4	36.7	45.4	55.1	48.0
-5	23.1	20.6	46.4	56.2	67.2	59.5
0	30.2	27.7	57.4	68.4	80.7	72.5
+5	37.9	36.0	69.9	82.1	95.9	87.2
+10	46.7	45.3	84.0	97.4	112.9	103.7
+15	56.5	56.1	99.7	114.4	131.7	121.1
+20	67.5	68.2	117.2	133.2	152.5	142.6
+25	79.7	81.8	136.6	153.8	175.5	165.4
+30	93.3	97.0	158.1	176.5	200.6	190.5
+35	108.2	113.9	181.7	201.4	228.1	218.1
+40	124.5	132.7	207.6	228.5	258.1	248.5
+45	142.5	153.6	236.0	257.9	290.6	281.7
+50	162.0	176.5	266.9	290.0	325.8	317.9

100 kPa = 1 Bar = 14.5038 lb.f/sq. inch. = 0 p.s.i. Gauge

Credit Account Application Form - Please Mail or Fax on 01752 897055
PLEASE COMPLETE IN BLOCK CAPITALS.

Company Details (All Applicants - Please provide a letterhead).			
Full Registered Name:		Date of Incorporation:	
Trading Name:		Registration Number:	
Trading Address:		VAT Number:	
Telephone:		Company Type:	Limited ☐ Plc ☐
Fax:			Government ☐
E-mail:			Partnership ☐
			Sole Trader ☐
Sole Traders and Partnerships Only. Names and home addresses of the business owners. We ask that all sole Traders/Partnership Applicants provide suitable evidence of their home address (Utility bill, Bank statement etc).			
Name:		Name:	
Home Address:		Home Address:	
Post Code:		Post Code:	
Sole Traders and Partnerships Only. Previous home addresses of the business owners (if less than 3 years at current address).			
Name:		Name:	
Home Address:		Home Address:	
Post Code:		Post Code:	
Account requirements			
Type of Account requested:	Credit ☐ Non-Credit ☐		
Monthly Credit Required:	£		
Company Bank Details			
Bank Name:		Sort Code:	
Address:		Account Number:	
	Post Code:		
Previous Trading Experience			
Have you, any parent or subsidiary company, previously traded with Refrigeration Parts Wholesale Ltd before in any other capacity?			
Account Name:		Account Number:	
Do any of your directors hold other directorships? If yes please attach details			
Have you ever filed for bankruptcy or been disqualified as a director? If yes, please attach details			
Certification Requirements			
Do you employ <u>directly</u> , or are you a skilled refrigeration or air conditioning engineer?			Yes ☐ No ☐

