HVAC & R
PRODUCT GUIDE

#thediversitechway

DiversiTech ®
INTERNATIONAL

INSTALL+

Everything you need from our wide range of products to make installation easier

EASY~FIT

If it is in our extensive range of Easy-Fit products (from brackets to protective guards) - it is EASY-to-FIT

SERVICE+ MAINTENANCE

From chemicals through to leak detection dyes, DiversiTech International covers all your needs

TOOLS+

A full range of hand tools including BOSCH, Imperial, Spin and Hilmor

FLEXI

Our comprehensive range of products that provide a simplistic and cost-effective mounting solution

DiversiTech International provides the WOW FACTOR

1. We answer all calls into the business within **THREE** rings.

2. We acknowledge all orders with a '**THANK YOU**' phone call and an order confirmation email.

3. All after-sales visit requests from our **Area Sales Managers** are actioned within **60** minutes.

4. We respond to **95%** of all our **Flexi Support System** enquiries within **4** working hours.

5. Any customer requesting a quotation will receive a **follow-up call** after the quotation has been sent.

6. We send **catalogues** and **new literature** with all **orders** to ensure our customers are kept up-to-date at all times.

PRODUCTS

We strive to deliver to you, our customers, the best products on the market - constantly innovating and improving. Our products are designed to save you time. We are the only company which covers the ancillary range for the HVAC&R market.

TECHNICAL EXPERTS

We believe that delivering exceptional technical support is crucial to the success of our customers. All our staff are technically trained, and we have a team of people ready to help you.

WOW FACTOR

We are the solution provider for your logistic requirements. We listen to you, and provide the fastest response time within the industry. 95% of our Flexi Support enquiries are responded to within 4 working hours.

INTERNATIONAL

Globally connected operations within 30 countries, and across 5 continents. We are continually customising our products and services to suit the individual needs of our international customer base.

EXPERIENCED STAFF

We understand that each customer's needs are unique. Our team at DiversiTech International respect and consider this in every decision we make. Face-to-face, over the phone or electronically - we are here to serve you. Our sales and technical teams strive for the highest standards.

CHARITABLE GIVING

We continue to support local charities such as Maytree Respite Centre, the Brain Tumour Charity, and local sports teams and organisations. We recognise these institutions, and all their voluntary work, as being inspiring and unconditional.

DIVERSITECH INTERNATIONAL® Glaisdale Drive East | Nottingham NG8 4LY | United Kingdom

REFRIGERATION

PUMPS

DAIRY CABINET SUPERMARKET PUMPS

These dairy cabinet supermarket pumps can fit under low display cabinets due to being just 76mm in height. The multiple inlets offer a variety of installation options for the contractor.

DCP-30A

DCP-30V

Code	Description	Tank capacity	Max flow	Dimensions mm (HxWxD)	Discharge size (inches)
DCP-30A	Dairy cabinet pump (standard with safety switch)	5.5L	700LPH	76 x 200 x 610	1/2
DCP-30E	Dairy cabinet pump (no S/S or L/D)	5.5L	700LPH	76 x 200 x 610	1/2
DCP-30V	Dairy cabinet pump (vertical)	4.5L	700LPH	200 x 580 x 76	1/2
DCP-P	High-pressure replacement pump	-	700LPH	-	3/8

EVAPORATOR TRAY

A thermostatically- controlled cast aluminium tray designed to collect and evaporate condensate water. Ideal for refrigeration display cabinets.

ET-150

Code	Description	Tank capacity	Evaporation rate	Dimensions mm (HxWxD)	Weight
ET-150	Evaporator tray	1.5L	150ml per hour	90 x 320 x 120	1.1kg

PUMPS

INSTALL+

VIBRATION ABSORBER

Designed for the installation of the suction and discharge
lines of air conditioning and refrigeration systems. Used
to dampen compressor-induced vibrations and reduce
the damage to the system's pipe work.

Part Code	Description	Tube OD (Inches)	Tube OD (mm)	Max. Working Pressure (psiG)	Burst Pressure (psiG)
VIBA-1/4	Vibration Absorber 1/4 (6mm)	1/4	6mm	650 (44.8 bar)	3250 (224 bar)
VIBA-3/8	Vibration Absorber 3/8 (10mm)	3/8	10mm	650 (44.8 bar)	3250 (224 bar)
VIBA-1/2	Vibration Absorber 1/2 (12mm)	1/2	12mm	650 (44.8 bar)	3250 (224 bar)
VIBA-5/8	Vibration Absorber 5/8 (16mm)	5/8	16mm	650 (44.8 bar)	3250 (224 bar)
VIBA-3/4	Vibration Absorber 3/4 (18mm)	3/4	18mm	650 (44.8 bar)	3250 (224 bar)
VIBA-7/8	Vibration Absorber 7/8 (22mm)	7/8	22mm	650 (44.8 bar)	3250 (224 bar)
VIBA-1-1/8	Vibration Absorber 1-1/8 (28mm)	1-1/8	28mm	600 (41.3 bar)	3000 (206.8 bar
VIBA-1-3/8	Vibration Absorber 1-3/8 (35mm)	1-3/8	35mm	550 (37.9 bar)	2750 (189.6 bar)
VIBA-1-5/8	Vibration Absorber 1-5/8 (42mm)	1-5/8	42mm	510 (35.1 bar)	2550 (175.8 bar)
VIBA-2-1/8	Vibration Absorber 2-1/8 (54mm)	2-1/8	54mm	400 (27.5 bar)	2000 (137.8 bar)
VIBA-2-5/8	Vibration Absorber 2-5/8 (64mm	2-5/8	64mm	350 (24.1 bar)	1750 (120.6 bar)
VIBA-3-1/8	Vibration Absorber 3-1/8 (76mm)	3-1/8	76mm	320 (22.0 bar)	1600 (110.3 bar)
VIBA-3-5/8	Vibration Absorber 3-5/8 (89mm)	3-5/8	89mm	190 (13.1 bar)	570 (39.3 bar)
VIBA-4-1/8	Vibration Absorber 4-1/8 (108mm)	4-1/8	108mm	190 (13.1 bar)	570 (39.3 bar)

K-KLAMP - PIPE AND INSULATION CLAMP

k•klamp

K-KLAMP eliminates having to double-wrap, glue
and tape the insulation on strut-mounted clamps.
K-KLAMP pipe and insulation coupling reduces the
time required to insulate copper tubing used for
refrigerant lines. Our clamp allows sections of closed-
cell insulation to be secured at fixing points.

Part code	Insulation wall thickness			
	3/8"	1/2"	3/4"	1"
1/4"	K38-14	-	K34-14	-
3/8"	K38-38	K12-38	K34-38	-
1/2"	K38-12	K12-12	K34-12	K100-12
5/8"	K38-58	K12-58	K34-58	K100-58
3/4"	K38-34	K12-34	K34-34	K100-34
7/8"	K38-78	K12-78	K34-78	K100-78
1"	K38-100	K12-100	-	-
1-1/8"	K38-118	K12-118	K34-118	K100-118
1-3/8"	K38-138	K12-138	K34-138	K100-138
1-5-8"	K38-158	K12-158	K34-158	K100-158
2-1/8"	K38-218	K12-218	K34-218	K100-218
2-5/8"	-	K12-258	K34-258	K100-258
3-1/8"	-	K12-318	K34-318	K100-318
3-5/8"	-	K12-358	K34-358	K100-358
4-1/8"	-	K12-418	K34-418	K100-418

Klo-Shure Code	Discharge size (inches)
729037	Klo-Shure 3/8" ID x 1-1/2"
729050	Klo-Shure 1/2" ID x 1-1/2"
729062	Klo-Shure 5/8" ID x 1-1/2"
729087	Klo-Shure 7/8" ID x 1-1/2"
729112	Klo-Shure 1-1/8" ID x 1-1/2"
729137	Klo-Shure 1-3/8" ID x 1-1/2"
729162	Klo-Shure 1-5/8" ID x 1-1/2"
729212	Klo-Shure 2-1/8" ID x 1-1/2"
729262	Klo-Shure 2-5/8" ID x 1-1/2"
729312	Klo-Shure 3-1/8" ID x 1-1/2"
729412	Klo-Shure 4-1/8" ID x 1-1/2"

FAN MOTORS

Universal Multi-Fit Fan Motors

Universal, multi-fit fan motors are individually boxed and come complete with fixings. The 1 metre power cord offers flexibility during installation. CE certified / ROHS-2 compliant.

Code	Description	Watts	Voltage	Frequency	Revs	Cable Length
FM-5W	Universal Multi-Fit Fan Motor – 5W	5W	240V	50/60Hz	1300/1500 rpm	1m
FM-7W	Universal Multi-Fit Fan Motor – 7W	7W	240V	50/60Hz	1300/1500 rpm	1m
FM-10W	Universal Multi-Fit Fan Motor – 10W	10W	240V	50/60Hz	1300/1500 rpm	1m
FM-16W	Universal Multi-Fit Fan Motor – 16W	16W	240V	50/60Hz	1300/1500 rpm	1m
FM-18W	Universal Multi-Fit Fan Motor – 18W	18W	240V	50/60Hz	1300/1500 rpm	1m
FM-25W	Universal Multi-Fit Fan Motor – 25W	25W	240V	50/60Hz	1300/1500 rpm	1m
FM-34W	Universal Multi-Fit Fan Motor – 34W	34W	240V	50/60Hz	1300/1500 rpm	1m

Tangential Fan Motors

Tangential single-impeller fan motor assemblies with aluminium blades. Individually boxed complete with fixings. CE certified / ROHS-2 compliant.

Code	Description	Watts	Blade Length	Rotate Speed	Air Flow
FMTS-15W-120	Tangential Fan Motor 15W with 120mm Blade	15W	120mm	2200rpm	80m³/h
FMTS-20W-180	Tangential Fan Motor 20W with 180mm Blade	20W	180mm	2000rpm	120m³/h
FMTS-30W-240	Tangential Fan Motor 30W with 240mm Blade	30W	240mm	2100rpm	170m³/h
FMTS-30W-300	Tangential Fan Motor 30W with 300mm Blade	30W	300mm	1900rpm	190m³/h

Axial Fan Motors

Axial shaded fan motors have a compact structure and small volume. Lightweight, low noise and used on refrigeration equipment. Individually boxed, CE certified / ROHS-2 compliant, these motors have an ambient operating temperature -20°C to +60°C

Code	Description	Watts	Voltage	Frequency	Revs	Cable Length	Air Flow	Db(A) Rating
FM-A-8038-L	Axial Fan Motor – 15W (with lead)	15W	240V	50Hz	2200rpm	30mm	40m³/h	23.4
FM-A-12025-L	Axial Fan Motor – 13W (with lead)	13W	240V	50Hz	1800rpm	30mm	71m³/h	35.6
FM-A-12038-L	Axial Fan Motor – 20W (with lead)	20W	240V	50Hz	2500rpm	30mm	132m³/h	37.3
FM-A-12038-T	Axial Fan Motor – 20W (with terminal)	20W	240V	50Hz	2500rpm	-	132m³/h	37.3

Code	Description	Watts	Dimensions in (mm)		
			Height	Width	Depth
FM-A-8038-L	Axial Fan Motor – 15W (with lead)	15W	80mm	80mm	38mm
FM-A-12025-L	Axial Fan Motor – 13W (with lead)	13W	120mm	120mm	26mm
FM-A-12038-L	Axial Fan Motor – 20W (with lead)	20W	120mm	120mm	38mm
FM-A-12038-T	Axial Fan Motor – 20W (with terminal)	20W	120mm	120mm	38mm

FAN MOTORS

Fan Motor Assemblies

A complete range of pressed aluminium blades, fan rings, guards and brackets to suit our range of multi-fit fan motors. Available in a variety of diameters and pitches to suit most refrigeration applications. All accessories can be sold as indvidual items or as a complete assembly combined to create your own fan requirements.

Code	Description	Diameter	Pitch
FBS-154-25	Fan Blade - Sucker	154mm	25°
FBS-154-31	Fan Blade - Sucker	154mm	31°
FBS-172-25	Fan Blade - Sucker	172mm	25°
FBS-172-31	Fan Blade - Sucker	172mm	31°
FBS-200-25	Fan Blade - Sucker	200mm	25°
FBS-200-31	Fan Blade - Sucker	200mm	31°
FBS-230-25	Fan Blade - Sucker	230mm	25°
FBS-230-31	Fan Blade - Sucker	230mm	31°
FBS-254-25	Fan Blade - Sucker	254mm	25°
FBS-254-31	Fan Blade - Sucker	254mm	31°
FBS-300-25	Fan Blade - Sucker	300mm	25°
FBS-300-31	Fan Blade - Sucker	300mm	31°

Code	Description	Diameter	Pitch
FBB-154-25	Fan Blade - Blower	154mm	25°
FBB-154-31	Fan Blade - Blower	154mm	31°
FBB-172-25	Fan Blade - Blower	172mm	25°
FBB-172-31	Fan Blade - Blower	172mm	31°
FBB-200-25	Fan Blade - Blower	200mm	25°
FBB-200-31	Fan Blade - Blower	200mm	31°
FBB-230-25	Fan Blade - Blower	230mm	25°
FBB-230-31	Fan Blade - Blower	230mm	31°
FBB-254-25	Fan Blade - Blower	254mm	25°
FBB-254-31	Fan Blade - Blower	254mm	31°
FBB-300-25	Fan Blade - Blower	300mm	25°
FBB-300-31	Fan Blade - Blower	300mm	31°

Code	Description	Diameter
FRS-154	Fan Ring	154mm
FRS-172	Fan Ring	172mm
FRS-200	Fan Ring	200mm
FRS-230	Fan Ring	230mm
FRS-254	Fan Ring	254mm
FRS-300	Fan Ring	300mm

Code	Description	Diameter
FG-154	Fan Guard	154mm
FG-172	Fan Guard	172mm
FG-200	Fan Guard	200mm
FG-230	Fan Guard	230mm
FG-254	Fan Guard	254mm
FG-300	Fan Guard	300mm

Code	Height	Width	Depth
FBR-109-1	109mm	81mm	24mm
FBR-109-2	109mm	78mm	39mm
FBR-109-3	109mm	78mm	49mm
FBR-39	39mm	-	-
FBR-55	55mm	-	-
FBR-72	72mm	-	-
FBR-84	84mm	-	-

Fan Motor	Fan Blade	Fan Bracket	Fan Ring	Fan Guard

ISOLATORS

ROTARY ENCLOSED ISOLATORS

Our insulated 3 and 4 pole rotary enclosed isolators are CE marked and suitable for disconnecting the power supply to outdoor air conditioning units.

The isolators are weatherproof to IP65, easy to install and conform to IEC 60947-3. They have a lockable off position and interlocking cover which can be removed only in the off position. Earth and neutral terminals included and M20/25 knockouts up to 63A.

Code	No of poles	AMPS AC21	AC23 A 240VA	AC23 A 400VA	Cable capacity		Height	Width	Depth
					Solid	Stranded			
IS-3P-20A-S	3	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-3P-32A-S	3	32 amp	11kW	7.5kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-3P-20A	3	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-32A	3	30amp	11kW	7.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-40A	3	40amp	15kW	11kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-63A	3	63amp	22kW	18.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm

Code	No of poles	AMPS AC21	AC23 A 240VA	AC23 A 400VA	Solid	Stranded	Height	Width	Depth
IS-4P-20A-S	4	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-4P-32A-S	4	32 amp	11kW	7.5kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-4P-20A	4	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-32A	4	32amp	11kW	7.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-40A	4	40amp	15kW	11kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-63A	4	63amp	22kW	18.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm

PROTECTIVE HOUSING

EASY~FIT

Easy~Fit housings are manufactured in two sizes and are ideal for all brands of outdoor refrigeration condensing equipment.

The steel goes through an 8-phase epoxy polyester powder coating process and is finished with a scratch resistant textured finish in RAL 7032.

Code	Size	External Dimensions mm (HxWxD)			Internal Dimensions mm (HxWxD)			Weight
CH-S	Small	500	710	600	410	640	530	23kg
CH-L	Large	550	810	720	460	740	640	30kg

REFRIGERANT ID LABELS

A range of self adhesive vinyl labels. Each label indicates the type of refrigerant and come in a handy pack of 10. We also supply pipe labels. Avoid costly mistakes by properly identifying the type of refrigerant contained in recovery cylinders and air conditioning and refrigeration equipment. Contact us for more information.

SYNTHETIC REFRIGERATION OIL

FUCHS REFRIGERANT OIL

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1L 5L 10L

Part code	Description	Size
601231292	Fuchs Reniso Triton SEZ 22	5 L
600669812	Fuchs Renison Triton SEZ 32	1L
601231339	Fuchs Reniso Triton SEZ 32	5L
600646509	Fuchs Reniso Triton SE55	1L
601231414	Fuchs Reniso Triton SE 55	5 L
600680107	Fuchs Reniso Triton SEZ 68	1L
601231254	Fuchs Renison Triton SEZ 68	5L
601231278	Fuchs Reniso Triton SE 170	5L
600680442	Fuchs Reniso Triton SE 170	10L

600756512	Fuchs Reniso PAG 100	1L

600741105	Fuchs Reniso C85 E	1L
600360382	Fuchs Reniso C85 E	10L

WHY USE FUCHS

1 **High thermo-chemical stability**
e.g. in Sealed Glass Tube Test (ASHRAE 97-2007)

High stability

Standard POE refrigeration oils / RENISO TRITON SEZ 80

2 **Very good miscibility**
with HFC/FC: e.g. in miscibility evaluation (DIN 51514)

Good miscibility

Standard POE refrigeration oils / RENISO TRITON SEZ 80

3 **Low varnish / low sludge formation**
e.g. in FUCHS In-house test (evaluation of oil sludge in beaker with bearing roller after 168h/135 °C)

No sludge

Standard POE refrigeration oils / RENISO TRITON SEZ 80

4 **Reliable wear protection**
e.g. in bearing wear testing (DIN 51819-3)

No wear

Standard POE refrigeration oils / RENISO TRITON SEZ 80

SYNTHETIC REFRIGERATION OIL

INSTALL+

FUCHS

RENISO TRITON SE/SEZ
Synthetic refrigeration oils based on polyol esters (POE) for HFC/FC refrigerants

Description

The refrigeration oils of the RENISO TRITON SE/SEZ series are based on synthetic esters that were especially developed for use with chlorine-free, fluorinated hydrocarbons (HFC/FC). In contrast to conventional refrigeration oils, these are miscible and compatible with polar HFC/FC.

Application

The RENISO TRITON SE/SEZ series is outstandingly suited for all refrigeration circuits, in which chlorine-free HFC/FC refrigerants, e.g. R134a, R404A or R410A are used. Depending on the viscosity, RENISO TRITON SE/SEZ refrigeration oils are recommended for hermetical, semi-hermetical and open piston compressors and for screw-type and turbo-compressors. RENISO TRITON SEZ 22 is especially suitable for deep-freeze systems operating with R23.

RENISO TRITON SE/SEZ products are also suitable for hydrocarbon refrigerants (e.g. propane, poly-propylene, isobutane) and R22. In such cases please contact FUCHS prior to the usage.

Specifications

RENISO TRITON SE/SEZ lubricants fulfill and exceed the requirements acc. to DIN 51503-1, Groups KC, KD, KE.

Advantages/ Benefits

• **Special synthetic polyolester**

• **Stable lubrication film even at high temperatures, outstanding lubricity**

• **Excellent solubility with HFC and FC refrigerants**

• **Very high thermal and chemical stability in the presence of fluorinated refrigerants**

• **Good viscosity-temperature behavior**

• **Excellent cold temperature flowability**

• **Secure oil return from the system, good heat transfer**

• **Good compatibility with elastomers and materials normally used in refrigeration circuits**

• **Readily biodegradable (ISO VG 32 and ISO VG 55)**

• **Approved by leading compressor manufac-turers**

• **Ultra-dried**

Product name		RENISO TRITON				
		SEZ 22	SEZ 32	SE 55	SEZ 68	
Properties	**Unit**					**Test method**
Density at 15 °C	kg/m³	1003	1004	1009	970	DIN 51757
Flash point	°C	248	250	286	258	DIN ISO 2592
Color	-	0	0.5	1.0	0.5	DIN ISO 2049
Kinematic viscosity at 40 °C at 100 °C	mm^2/s mm^2/s	20 4.4	32 6.1	55 8.8	68 8.9	DIN EN ISO 3104
Viscosity index	-	133	141	137	104	DIN ISO 2909
Pourpoint	°C	-57	-57	-48	-39	DIN ISO 3016
Neutralization number	mgKOH/g	0.03	0.03	0.03	0.03	DIN 51558-1
Water content	mg/kg	< 50	< 50	< 50	< 50	DIN 51777-2

SYNTHETIC REFRIGERATION OIL

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RENISO PAG 46 and RENISO PAG 100
Fully synthetic refrigeration oils based on special polyglycols (PAG) for R134a A/C systems

Description

Because of their Cl content, CFC refrigerants like R12 destroy the earth's ozone layer. This led all manufacturers to cease production of fully halogenized CFC's and introduce alternative products. This move is a reaction to the ban on CFC's and halons which established a timetable for the progressive ending of CFC production and use. Alternative refrigerants such as R134a have found general acceptance and are currently in use.
As classic refrigeration oils based on mineral oils, polyalphaolefins and alkylbenzene oils are not miscible with R134a, new refrigeration oils had to be developed, RENISO PAG-Series.

Application

Most car and truck air conditioning systems use Japanese- or American-made compressors and R134a refrigerants. These compressors require the use of synthetic, polyglycol-based refrigeration oils such as RENISO PAG 46 or RENISO PAG 100. The RENISO PAG products have an excellent miscibility and compatibility with R134a.

RENISO PAG 46 and RENISO PAG 100 are based on polar polyglycols. The structure of polyglycols make them hygroscopic (= absorb moisture). This means that special care must be taken when handling such products (always keep containers tightly sealed, use nitrogen to cover the refrigeration oil and store drums in dry, air conditioned rooms).

Advantages

• **Very high thermal stability**

• **Excellent miscibility and compatibility with R134a refrigerants (substitute for R12 refrigerants)**

• **Excellent viscosity-temperature behaviour (high VI)**

• **Low viscosity at low temperature, good flowability**

• **Stable lubricating film at high temperatures**

• **Good compatibility with all materials commonly used in refrigeration systems**

• **RENISO PAG 46 and RENISO PAG 100 are ultra-dried**

Product name		PAG 46	PAG 100	
Refrigeration oil type acc. to DIN 51503-1		KD	KD	
Characteristics	Unit			Test method
Colour		colourless	colourless	Visual
Kinematic viscosity at 40 °C at 100 °C	mm^2/s mm^2/s	55 10.6	120 21	DIN EN ISO 3104
Viscosity index		187	202	DIN ISO 2909
Density at 15 °C	kg/m^3	992	996	DIN 51757
Flashpoint, Cleveland open cup	°C	240	240	DIN ISO 2592
Pourpoint	°C	- 45	- 45	DIN ISO 3016
Neutralisation number	mgKOH/g	0.04	0.04	DIN 51558-1
Water content	ppm	300	300	DIN 51777-2
Stability with R134a, 175 °C / 14 days	--	pass	pass	ASHRAE 97-89

SYNTHETIC REFRIGERATION OIL

INSTALL$^+$

FUCHS

RENISO C 85 E
Synthetic refrigeration oil for CO$_2$ compressors

Description

RENISO C 85 E is a special synthetic refrigeration oil based on synthetic esters. Selected additives guarantee excellent wear protection, also under the influence of CO$_2$ in the compressor. RENISO C 85 E has an excellent solubility / miscibility with the refrigerant carbon dioxide (R 744).

Application

RENISO C 85 E was developed for use mainly in refrigeration systems (deep-temperature systems, cascades, etc.) which are working with the refrigerant CO$_2$ (R 744). RENISO C 85 E has an excellent solubility / miscibility with CO$_2$ which guarantees the oil circulation in the refrigeration system, especially at low evaporation temperatures. RENISO C 85 E can be used in almost any application in industrial and commercial refrigeration, e.g. large-scale cooling plants. RENISO C 85 E can also be used in transcritical CO$_2$ cycles, e.g. air conditioning and heat pump systems, as well as container cooling systems.

Specifications

RENISO C 85 E is a refrigeration oil acc. to DIN 51503: KB – refrigeration oils for CO$_2$.

NSF H2 registration:
registration no. 146755

Advantages

• **High thermal stability**

• **High chemical stability with CO$_2$ refrigerant**

• **Excellent miscibility with CO$_2$ – also at low temperatures**

• **Excellent deep-temperature flowability**

• **Excellent lubrication at high pressure levels under CO$_2$ atmosphere**

• **Excellent experience in test facilities and prototype systems**

• **Used by leading compressor manufacturers. Approvals:**

  DORIN
  GEA BOCK
  GEA GRASSO
  JOHNSON CONTROLS INTERNATIONAL

Properties	Unit		Test Method
Colour		0.5	DIN ISO 2049
Density at 15 °C	kg/m^3	993	DIN 51757
Flashpoint	°C	246	DIN ISO 2592
Kinematic viscosity at 40 °C at 100 °C	mm^2/s mm^2/s	80 10.6	DIN EN ISO 3104
Viscosity index	-	118	DIN ISO 2909
Pourpoint	°C	- 42	DIN ISO 3016
Neutralisation number	mgKOH/g	0.03	DIN 51558-1
Water content	mg/kg	< 30	DIN 51777-2

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FUCHS SELECTION CHART

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals
MINERAL OILS	• **RENISO KM 32** • **RENISO KS 46** • **RENISO KC 68** • **RENISO KES 100**	-	• For NH3 and R22	-
	• **RENISO WF 5 A** • **RENISO WF 7 A** • **RENISO WF 10 A** • **RENISO WF 15 A**	-	• For hydrocarbons (e.g. R600a - hermetic compressors)	-
SYNTHETIC HYDROCARBON OIL	• **RENISO ULTRACOOL 68** • **RENISO ULTRACOOL 100**	• PETROCANADA REFLO 68 • KLUBER RHT 68 • CPI 1009 68 • MOBIL GARGOYLE ARCTIC SHC NH 68 226E • TEXACO CAPELLA P68 • TOTAL LUNARIA NH 68	• NH3 (Ammonia)	NSF H1 registered
POLYALPHAOLEPHINS (PAO) OILS	• **RENISO SYNTH 68**	• PETROCANADA REFLO 68 • KLUBER RHT 68 • CPI 1009 68 • MOBIL GARGOYLE ARCTIC SHC NH 68 226E • TEXACO CAPELLA P68 • TOTAL LUNARIA NH 68	• NH3 (Ammonia)	NSF H1 registered
POLYALKALINEGLYCOL (PAG) OIL	• **RENISO PG68**	-	• AMMONIA AND HYDROCARBONS	-
	• **RENISO LPG 68**	-	• HYDROCARBONS, e.g. R290, R1270, R600a	-
ALKYLBENZENES (AB)	• **RENISO SP 32** • **RENISO SP 46** • **RENISO SP 100** • **RENISO SP 220**	-	• R22 AND HYDROCARBONS	-
	• **RENISO S 3246** • **RENISO S 68**	-	• R22, HYDROCARBONS AND AMMONIA	-

FUCHS SELECTION GUIDE

FUCHS oil	Competitor equivalent	Refrigerants	Approvals
POLYOLESTER (POE) OILS • **RENISO SEZ 22** • **RENISO SEZ 32** • **RENISO SEZ 55** • **RENISO SEZ 68** • **RENISO SEZ 80 F** • **RENISO SE 100/170/220**	• BITZER BSE 32 • CASTROL ICEMATIC SW22-32-46-68-80 • SOLTEST 22-32-46-68-80 • EMKARTE RL22H-32-46-68-80 • MOBIL EAL ARCTIC 22-32-46-68-80 • SHELL CLAVUS R22-32-46-68-80 • SUNISO SL 22-32-46-68-80 • TEXACO CAPELLO HFC 22-32-46-68-80 • TOTAL PLANET ELF ACD 22-32-46-68-80 • BITZER BSE 150 170 • CASTROL ICEMATIC SW100-170-220 • CPI SOLTEST 100-170-220 • EMKARATE RL100 H-170-220 • MOBIL EAL ARCTIC 100-170-220 • SHELL CLAVUS R100-170-220 • SUNISO SL 100-170-220 • TOTAL PLANETELF ACD 100FY -150FY-220FY	• Fully synthetic oil based on Polyol ester POE. Suitable for no ozone depleting FC/HFC refrigerants. RENISO TRITON SE/SEZ suitable for HFO and HFO/HFC refrigerants. Suitable with new refrigerants designed to replace R22 such as R422A/D and R417a	• BITZER • BOCK • COPELAND (SEZ 32) • DANFOSS • FRIGOPOL • GRASSO (SCREW SEZ 68) • MCQUAY EUROPA • PRESTCOLD • ROTOCOLD • SABROE • SUTRAK • TRANE USA • ZANUSSI
• **RENISO TRITON SEZ 320**	-	R22	-
• **RENISO SEZ 35 SC**	-	HFC/FC	-

SPECIAL POLYOLESTER (POE) OIL			
• **RENISO C55 E** • **RENISO C85 E** • **RENISO C170 E**	-	• SUBCRITICAL CO2 • SUBCRITICAL/TRANSCRITICAL CO2 • SUBCRITICAL CO2 (screw compressor)	• BITZER • DANFOSS • GEA BOCK • GRASSO • LINDE CARRIER • OBRIST • YORK

SPECIAL POLYALKALINE GLYCOL (PAG)			
• **RENISO ACC**	-	• CO2 -AC CAR SYSTEMS	-
• **RENISO ACC 68 PAG**	-	• CO2 -HEAT PUMPS/CARS	-

SPECIAL POLYALKALINE GLYCOL (PAG) FOR MOBILE AC SYSTEMS			
• **RENISO PAG 46** • **RENISO PAG 100**	-	• R134A, HYDROCARBONS, AMMONIA	-
• **RENISO PAG 1234**	-	• R1234YF, R134A MOBILE SYSTEMS	-
• **RENISO ACC HV**	-	• CO2 MOBILE AC SYSTEMS	-

SPECIAL POE FOR MOBILE AC SYSTEMS - HYBRID AND ELECTRIC CARS			
• **RENISO TRITON SEZ 75 AC**	-	• R1234YF, R134A, ELECTRIC COMPRESSORS	-

AIR CONDITIONING

Orbital Flare
1838952

CONDENSATE PUMPS AND ACCESSORIES

INSTALL+

TANK PUMPS

DiversiTech International stock a range of various branded condensate removal tank pumps.

PH-1L / PH-1LSS

WHISPA-Q 1L

VCCA-20S

VCMX-20S

VCMA-20S

WHISPA-Q 2L

PH-2L / PH-2LSS

VCL-24S

VCL-45S

| Code	Description	Max head	Max flow	dB(A)	Dimensions mm (HxWxD)	Discharge size (inches)
PH-1L / PH-1L-SS	1 Litre Tank Pump	6m	270LPH	43	122x220x134	3/8
WHISPA-Q-1L	1 Litre Tank Pump	6m	14LPH	12	127x170x81	1/4
VCCA-20S	1 Litre Tank Pump	4.3m	294LPH	58-62	125x300x125	1/4 & 3/8
VCMX-20S	1.4 Litre Tank Pump	4.8m	284LPH	58	165x260x122	1/4 & 3/8
VCMA-20S	1.9 Litre Tank Pump	4.3m	294LPH	58-62	178x288x127	1/4 & 3/8
PH-2L / PH-2L-SS	2 Litre Tank Pump	4.8m	300LPH	60	180x290x130	1/4 & 3/8
WHISPA-Q -2L	2 Litre Tank Pump	6m	14LPH	12	165x250x135	1/4
VCL-24S	3.8 Litre Tank Pump	5.9m	900LPH	58-62	263x305x150	1/4 & 3/8
VCL-45S	3.8 Litre Tank Pump	10.5m	1560LPH	58-62	267x305x150	3/8
REDBOX-1L-S	1 Litre Tank Pump	5.1m	280LPH	44	120x150x300	3/8 & 1/4
REDBOX-2L-S	2 Litre Tank Pump	5.1m	280LPH	44	170x150x300	3/8 & 1/4

CONDENSATE PUMPS AND ACCESSORIES

INSTALL+

REDBOX-1L-S
1 LITRE CONDENSATE PUMP

The DiversiTech RedBox 1 Litre Tank Pump is a condensate tank pump with a flow rate of 280 LPH and a lift of 5.1 metres. This pump has metal mounting tabs which allows the tank to be screwed to the wall. The universal power lead makes the pump easy to install, service and retrofit.

The unique LED indicators highlight when the pump has power, is running and when the high level alarm has been activated.

120mm
150mm
300mm
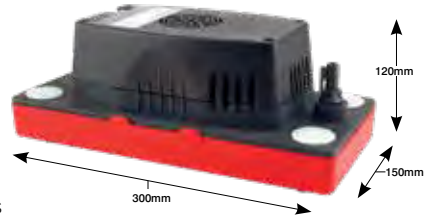
MAX. FLOW 280 LPH   **TANK CAP.** 1L   **DECIBEL RATING** 44 dB(A)

Part code	Max. lift	Discharge size	Watts	IP	Amps	Volts	HZ
REDBOX-1L-S	5.1m	3/8" / 1/4"	60W	20	1.0A	230V	50Hz

High level alarm	Inlet height fr. base	Weight	Cable length	Drink cycle	On level	Off level	Reserve before overflow	Alarm level
230V / 3A	112mm	2.3kg	1.8m	460ml	15.5mm	6mm	140ml	25mm

REDBOX-2L-S
2 LITRE CONDENSATE PUMP

The DiversiTech RedBox 2 Litre Tank Pump is a condensate tank pump with a flow rate of 280 LPH and a lift of 5.1 metres. This pump has metal mounting tabs which allows the tank to be screwed to the wall. The universal power lead makes the pump easy to install, service and retrofit.

The unique LED indicators highlight when the pump has power, is running and when the high level alarm has been activated.

170mm
150mm
300mm

MAX. FLOW 280 LPH   **TANK CAP.** 2L   **DECIBEL RATING** 44 dB(A)

Part code	Max. lift	Discharge size	Watts	IP	Amps	Volts	HZ
REDBOX-2L-S	5.1m	3/8" / 1/4"	60W	20	1.0A	230V	50Hz

High level alarm	Inlet height fr. base	Weight	Cable length	Drink cycle	On level	Off level	Reserve before overflow	Alarm level
230V / 3A	112mm	2.3kg	1.8m	1.45	47mm	6.5mm	375ml	52mm

CONDENSATE PUMPS AND ACCESSORIES

INSTALL +

MINI PUMPS

DiversiTech International stock a range of mini condensate pumps ideal for split air conditioning systems, small enough to be placed in the unit, or within trunking. We also provide mini pump options that come with an elbow and length of trunking.

EC-1 Pump Only

WHISPA-Q MINI and trunking

EC-1 KIT with elbow and trunking

DE-05-FD Flowatch Design® with elbow and trunking

Code	Description	Max head	Max flow	dB(A)	Dimensions mm (HxWxD)	Discharge size (inches)
EC-400	Mini pump	12m	14LPH	58	45x110x35	1/4"
EC-1	1 Litre Tank Pump	10m	10LPH	21	104x46x58	1/4"
EC-1 KIT	Mini pump with trunking	10m	10LPH	21	104x46x58	1/4"
DE-05-FD	Mini pump with trunking	10m	12LPH	< 21	800x150x80	1/4"
WHISPA-Q-MINI	Mini pump	6m	16LPH	21	-	-
WHISPA-Q-TRUNK	Mini pump with trunking	6m	16LPH	21	-	-
MF-2	Mini Flowatch 2	10m	12LPH	< 21	800x150x80	1/4"

CONDENSATE PUMPS AND ACCESSORIES

INSTALL+

PRESSURE RELIEF & BOILER CONDENSATE PUMP

PRV*Sure*

This pump is manufactured from high temperature plastic, and comes complete with 10m of higher specification hose.

It meets EN standards and can handle temperatures up to 110 degrees. Supplied with 10m of 'no sag' high-grade braided hose. This unique design also cools PRV discharge so it is safe for use with solvent weld pipework. For installers who are audited or working to EN standards.

Code	Brand	Description	Max Head	Max Flow	Temperature	Dimensions mm (HxWxD)	Discharge Size
PH-3.8L-HW	Pump House	Pressure Relief & Boiler Condensate Pump	8m	312LPH	110ºc	249x325x160	3/8 inch (9.5mm)

HIGH TEMPERATURE PRESSURE RELIEF PUMP

Designed for unvented cylinder T&P discharge and steam humidifiers. Having one of the largest discharge rates of 32 litres per minute this pump can handle both high temperature up to 100 degrees and high flow rates.

Manufactured in the UK this heavy duty, high temperature tank pump incorporates thermal overload protection and a high level alarm switch.

Code	Description	Max head*	Max flow	Temperature	Dimensions mm (HxWxD)	Discharge size
PH-5L-HW	High temperature & pressure relief pump	8m / 20m	1920LPH 32LPM	100° C	350x190x260	15mm

*Max heads - 8m for flow rates up to 25L per minute / 20m for flow rates of 5L per minute

CONDENSATE PUMPS AND ACCESSORIES

INSTALL⁺

ADAPTORS

DiversiTech International stock a range of adaptors to connect the unit to the pump.
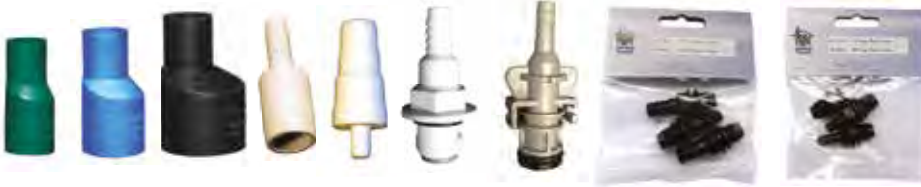
Code	Description	Pump type application	Pack QTY
ADAP-CAC-S	Cassette adaptor - small (green) 3/4" x 1"	Tank pump / gravity	3 pack
ADAP-CAC-M	Cassette adaptor - medium (blue) 3/4" x 1-1/4"	Tank pump / gravity	3 pack
ADAP-CAC-L	Cassette adaptor - large (black) 3/4" x 1-1/2"	Tank pump / gravity	3 pack
ADAP-CAC-X	Cassette adaptor - multipack	Tank pump / gravity	3 pack
ADAP-1	Condensate drain adaptor - 22mm to 3/8" (95mm)	Tank pump - 9.5mm (3/8") outlet	Single
ECOP-ADAP	Condensate drain adaptor - 16, 18, 22, 35mm to 1/4" hose	All pumps	Single
CV-38-3	Non-return check valve - 3/8" (9.5mm) VCMA/VCC	Tank pump - 9.5mm (3/8") outlet	3 pack
CV-14-3	Non-return check valve - 1/4" VCMA/VCC	Tank pump - (1/4") outlet	3 pack
PH-PUMP-NRV	Non-return check valve - 3/8" (9.5mm) PH	Tank pump - 9.5mm (3/8") outlet	Single
154724	Non-return check valve - 3/8" (9.5mm)	VCMX-20s pump	Single

SELF-SEALING PIPE ADAPTOR

The self-sealing adaptor is used to form a connection between condensate hose and a soil & vent pipe. Drill a 13mm hole (for SVA-3) or a 10mm hole (for SVA-6), insert and twist in to seal the connection.

SV-ADAPTOR   SV-ADAPTOR-6

Code	Description	Pack Qty
SVA-3	Self-sealing pipe adaptor – 6mm & 9.5mm (1/4 & 3/8) hose to soil & vent pipe	3 Pack
SV-ADAPTOR	Self-sealing pipe adaptor – 6mm & 9.5mm (1/4 & 3/8) hose to soil & vent pipe	Single
SVA-6-3	Self-sealing pipe adaptor – 6mm (1/4) hose to soil & vent pipe	3 pack
SV-ADAPTOR-6	Self-sealing pipe adaptor – 6mm (1/4) hose to soil & vent pipe	Single

AUDIBLE ALARM

This audible alarm can be wired into all pumps with a high level alarm switch.

Code	Description	Pack QTY
AUDIBLE ALARM	Audible alarm for all pumps with a high-level alarm switch	3 pack

CONDENSATE PUMPS AND ACCESSORIES

INSTALL+

Condensate Braided Hose

Our reinforced PVC braided hose is suitable for condensate drains and comes packaged in clear shrink wrap for protection and easy storage. The black hose has no light penetration, which prevents build up of mould growth.

Available in clear and black, in 6m & 30m coils.

Black

Clear

Code	Colour	Description	ID	OD	Pressure in Bar Working	Burst	Min Bend Radius	Min Temp*	Max Temp
RVT-1/4	Clear	1/4" x 30 metres	6mm	10mm	7	21	30º	-15°C	+60°C
RVT-3/8	Clear	3/8" x 30 metres	10mm	14mm	8	24	30º	-15°C	+60°C
RVT-1/2	Clear	1/2" x 30 metres	12mm	16mm	6	18	30º	-15°C	+60°C
RVT-5/8	Clear	5/8" x 30 metres	16mm	20mm	6	18	30º	-15°C	+60°C
RVT-1/4-B	Black	1/4" x 30 metres	6mm	10mm	7	21	30º	-15°C	+60°C
RVT-3/8-B	Black	3/8" x 30 metres	10mm	14mm	8	24	30º	-15°C	+60°C
RVT-1/2-B	Black	1/2" x 30 metres	12mm	16mm	6	18	30º	-15°C	+60°C
RVT-1/2-6	Clear	1/2" x 6 metres	12mm	16mm	6	18	30º	-15°C	+60°C
RVT-3/4-6	Clear	3/4" x 6 metres	19mm	23mm	6	18	30º	-15°C	+60°C

 * Hose stored in conditions above +5°C will be easier to handle/install.

Clear Vinyl Hose

Applications include air conditioning and refrigeration condensate drains, condensate pump discharge lines and humidifier overflows. Available in 30m coils.

Code	Colour	Description	ID	OD	Quantity
VT-14	Clear	1/4" x 30 metres	6mm	10mm	30 metres
VT-38	Clear	3/8" x 30 metres	10mm	14mm	30 metres

Code	Colour	Description	ID	OD	Quantity
7-14	Clear	1/4" x 30 metres	6.3mm	9.1mm	30 metres
7-38	Clear	3/8" x 30 metres	9.5mm	12.5mm	30 metres
7-12	Clear	1/2" x 30 metres	12.7mm	16mm	30 metres
7-58	Clear	5/8" x 30 metres	15.8mm	19.6mm	30 metres
7-34	Clear	3/4" x 30 metres	19mm	23.1mm	30 metres
7-10	Clear	1" x 15 metres	25.4mm	30.8mm	30 metres

Hose Connectors & Clamps

A range of Nylon hose connectors & clamps, to connect hose and secure fitting to prevent leaks.

701-038   701-030   B-6H

Code	Description	Pack Qty
701-030	Hose Connector – Nylon 1/4	Single
701-032	Hose Connector – Nylon 3/8	Single
701-038	Hose T Connector – Nylon 3/8	Single
B-4H	Hose Clamp – 3/16 – 5/16	Single
B-6H	Hose Clamp – 1/4 – 3/8	Single

CONDENSATE PUMPS AND ACCESSORIES

INSTALL+

Condensate Cop™

Condensate Cop™ is a unique clamp-on float switch intended for HVAC drain pan installation. The Condensate Cop™ features a large over-clamping area that fits easily over the edge of all types of drain pans; including formed plastic and galvanized sheet metal. A separate float/probe assembly swivels to accommodate drain pans having sloped sides. The swivel action allows the installer to position the float switch for best operation and then clamp it into place. The probe features an inlet grill which prevents the float from being blocked or damaged by insulation or other debris. Sealed inside the probe is a magnetically actuated normally closed switch. The switch opens when rising water presents a potential flooding condition.

Code	Description	UOM	Master Qty
CC-1	Condensate Cop™ Drain Pan Switch	Each	12

CS1200 AC Shutoff Switch

The CS1200 is an easy to install, reliable, condensate overflow detection switch. Featuring a unique universal pan mount design to assure accurate detection in metal or plastic secondary drain pans.

Code	Description	UOM	Master Qty
CS1200	AC Shutoff Switch	Each	12

Drain Dawg™

The Drain Dawg™ is a complete condensate drain cleaning kit, including the CT-475M deluxe nitrogen / CO2 0-475 psi regulator, the TG-10 & BS-25 ten foot hose and blowgun assembly, and the CW-15 fifteen inch whip hose. Also included is the AP-DD Drain Dawg™ Accessory Fitting Kit which contains the DF-75 Drain Dawg™ inflatable tip, the CK-141 3/4"-1" cone fitting, the FA-02 CO2 to nitrogen adaptor, the QN-S3 needle tip, and the TC-25 tyre chuck.

Code	Description	UOM	Master Qty
CB-2	Drain Dawg™ Kit	Each	3

Drain Kat™

The Drain Kat™ is an over the shoulder, refillable, nitrogen or CO_2 mini drain cleaning kit. Featuring a small cylinder that holds 9 cubic feet of nitrogen or 2-1/2 pounds of CO_2. The cylinder includes an integral mounted regulator for a quick and easy adjustment of discharge pressure.

Code	Description	UOM	Master Qty
MBK-6	Drain Kat™ Kit	Each	2

INDUSTRIAL PUMPS

Magnetic Drive Pumps - MD-SC / MD-HC Series

Little Giant magnet driven pumps feature a leak proof design that allows the pumps to be used in a variety of applications where continuous and reliable operation is desired and when pumping corrosive liquid is necessary.

The MD-SC Series is designed to pump mild to strong acids found in electroplating applications with temperatures up to 66°C. The MD-HC series can pump strong acids and alkaline solutions, including sulphuric nitric and hydrochloric acid with temperatures up to 93°C. In addition, the HC series offers "Run Dry" protection.

TE-3-MD-SC   TE-3-MD-HC   TE-4-MD-SC   TE-4-MD-HC

TE-5-MD-SC   TE-5-MD-HC   TE-5.5-MD-SC   TE-5.5-MD-HC

TE-6-MD-SC   TE-6-MD-HC   TE-7-MD-SC   TE-7-MD-HC

Code	Brand	Description	Max Head	Max Flow	Liquid Temp. in °C	Inlet Size (inch)	Discharge Size (inch)
TE3-MD-SC	Little Giant	Magnetic Drive TE3 Series Pump	3.5m	1980LPH	66°C	1" FNPT	1/2" MNPT
TE3-MD-HC	Little Giant	Magnetic Drive TE3 Series Pump	3.5m	2100LPH	93.3°C	1" FNPT	1/2" MNPT
TE4-MD-SC	Little Giant	Magnetic Drive TE4 Series Pump	4.9m	2940LPH	66°C	1" FNPT	1/2" MNPT
TE4-MD-HC	Little Giant	Magnetic Drive TE4 Series Pump	4.9m	2940LPH	93.3°C	1" FNPT	1/2" MNPT
TE5-MD-SC	Little Giant	Magnetic Drive TE5 Series Pump	6.2m	3660LPH	66°C	1" FNPT	1/2" MNPT
TE5-MD-HC	Little Giant	Magnetic Drive TE5 Series Pump	6.2m	3660LPH	93.3°C	1" FNPT	1/2" MNPT
TE5.5-MD-SC	Little Giant	Magnetic Drive TE5.5 Series Pump	8.8m	6120LPH	66°C	1" FNPT	3/4" MNPT
TE5.5-MD-HC	Little Giant	Magnetic Drive TE5.5 Series Pump	8.8m	6120LPH	82.2°C	1" FNPT	3/4" MNPT
TE6-MD-SC	Little Giant	Magnetic Drive TE6 Series Pump	10.7m	7500LPH	66°C	1" FNPT	3/4" MNPT
TE6-MD-HC	Little Giant	Magnetic Drive TE6 Series Pump	10.7m	7500LPH	82.2°C	1" FNPT	3/4" MNPT
TE7-MD-SC	Little Giant	Magnetic Drive TE7 Series Pump	12.3m	9540LPH	66°C	1-1/2"FNPT	1" MNPT
TE7-MD-HC	Little Giant	Magnetic Drive TE7 Series Pump	12.3m	9540LPH	93.3°C	1-1/2"FNPT	1" MNPT

INDUSTRIAL PUMPS

Parts Washer Pump
1Y-PW (501027)
PE2-YSA (14940101)

Submersible, unpainted, aluminium housing pumps with Viton® seals, 1/4" MNPT discharge, master builders conduit fitting. The PE pumps have an epoxy encapsulated motor.

1Y-PW   PE2-YSA

Code	Brand	Description	Max Head	Max Flow	Dimensions mm (HxWxD)	Discharge Size (inch)	Weight
1Y-PW	Little Giant	Parts Washer Pump	2m	800LPH	117x109x104	1/4" MNPT	1.6kg

Code	Brand	Description	Max Head	Max Flow	Dimensions mm (HxWxD)	Discharge Size (inch)	Weight
PE2-YSA	Little Giant	Small Submersible Pump	3.8m	1135LPH	142x137x73	1/4" MNPT	2kg

OTHER PUMPS

Pool Cover Pump - APCP-1700 (577309)

Little Giant Pool Cover Pumps help safeguard and protect the pool cover from prolonged accumulation of rain or melting snow. This automatic version is certified for use on pool covers, all of which can attach to a standard garden hose for easy water removal. It removes standing water from pool covers and is ideal for household water transfer applications.

APCP-1700

Code	Description	Max head	Max flow	Dimensions (HxWxD)	Discharge size (inch)	Weight
APCP-1700	Automatic pool cover pump	6.6m	6814LPH	210x305x305	1" FNPT	5.4kg

CONDENSING UNIT GUARDS

EASY-FIT

CONDENSING GUARDS

DiversiTech manufacture a range of weather-resistant, steel mesh guards, offering a safe solution to vandalism and accidental damage of your expensive AC unit or ASHP. The range is ideal for all manufacturers of air conditioning and air source heat pump units. The unique sliding panel system allows for easy installation, which are secured into place when the front panel is fitted. Back panels are also available to make the guard free standing. For high wall-mounted units, we can offer a base panel for full security.

Code	Size	External Dimensions mm (HxWxD)			Internal Dimensions mm (HxWxD)			Weight
CG-S	S	750	1050	460	720	1020	450	18kg
CG-M	M	1150	1150	650	1120	1120	640	27kg
CG-L	L	1450	1150	650	1420	1120	640	30kg
CG-XL	XL	1800	1150	650	1770	1120	640	40kg
CG-500-S	S	620	1050	500	590	990	470	13kg
CG-500-M	M	1020	1050	500	990	990	470	18kg
CG-500-L	L	1420	1050	500	1390	990	470	23kg
CG-750-S	S	950	1150	750	920	1120	740	25kg
CG-750-M	M	1150	1150	750	1120	1120	740	32kg
CG-750-L	L	1450	1150	750	1420	1120	740	33kg
CG-750-INV	INV	1150	1450	750	1120	1420	740	33kg
CG-900L-INV	L-INV	1150	1450	900	1120	1420	890	34kg
CG-900L-SQ	L-SQ	1450	1450	900	1420	1370	890	51kg
CG-900-XXL	XXL	1800	1450	900	1770	1370	890	60kg
CG-VRF-BP	BP-S	2000	1160	1200	1970	1130	1200	64kg
CG-VRF-EP-6	EP-S	2000	580	1200	1970		1200	24kg
CG-VRF-EP-12	EP-M	2000	1160	1200	1970		1200	41kg

WOODEN GUARDS

Made from tanallised, pressure-treated timber. All panels have rounded louvers to optimise air flow. Sized to protect both ASHP and AC units, these guards offer a solution for listed buildings and sites where aesthetics are a consideration. All components are flat-packed for easy transport, and easy-to-install and assemble.

Code	Size	External Dimensions mm (HxWxD)			Internal Dimensions mm (HxWxD)			Weight
CG-750S-WOOD	S	905/960	1275	865	850/890	1055	753	35kg
CG-750M-WOOD	M	1135/1135	1275	865	1075/1115	1055	753	40kg
CG-750M+WOOD	M+	255/1310	1275	865	1200/1240	1055	753	44kg
CG-750L-WOOD	L	1530/1585	1275	865	1475/1515	1055	753	51kg
CG-750LINV-WOOD	L-INV	1130/1185	1630	865	1075/1115	1405	753	47kg
CG-750L+WOOD	L+	1600/1655	1275	865	1545/1585	1055	753	57kg
CG-750L+INVWOOD	L+ INV	1655/1690	1630	865	1580/1620	1405	753	59kg

CONDENSING BRACKETS

EASY-FIT

WALL MOUNTING BRACKETS

Diversitech International offer a range of flat packed brackets,
the Type 1 bracket has uprights and mounts directly onto the wall. Type 2 comes with a crossbar so that the uprights can be spaced exactly as required. The integral spirit level makes installation easier. Type 3 brackets have a unique interlocking mechanism enabling the arms to be joined in a matter of seconds.

For improved corrosion resistance all metal receives a 100% zinc plating, followed by a hard ED coating, before being finished with an external grade polyester textured powder coating in RAL 7032.

For lighter condensing units we offer an economy version. This incorporates the traditional crossbar style for easy spacing of the support arms. We also offer a range of stainless steel brackets, which are recommended for coastal locations exposed to sea salt or in corrosive environments.

Process One
Corrosion resistant raw material, often referred to as Zintec.

Process Two
Zinc phosphating process, multi stage cleaning & dipping chemical zinc

Process Three
ED coating process: electrophoretic deposition (aka ED or EPD) coating

Process Four
Epoxy polyester powder coating

Part code	Description	Safe working load*	Max load	Crossbar	Upright	Support arm	Weight
CBR2-S	Type 2 Bracket – Small	60kg	120kg	720mm	400mm	400mm	3.8kg
CBR2-M	Type 2 Bracket – Medium	90kg	180kg	900mm	500mm	500mm	4.6kg
CBR2-L	Type 2 Bracket – Large	140kg	280kg	1040mm	550mm	540mm	6.6kg
CBR2-XL	Type 2 Bracket – XL	250kg	500kg	1040mm	550mm	660mm	16.2kg
CBR2-XXL	Type 2 Bracket – Double XL	200kg	400kg	1040mm	550mm	780mm	17.3kg

Part code	Description (BLACK)	Safe working load*	Max load	Crossbar	Upright	Support arm	Weight
CBR2-XL-BL	Type 2 Bracket – XL	250kg	500kg	1040mm	550mm	660mm	16.2kg
CBR2-XL-3A-BL	Type 2 Bracket – XL (3 arms)	250kg	500kg	1040mm	550mm	660mm	21.5kg
CBR2-XXL-BL	Type 2 Bracket – Double XL	200kg	400kg	1040mm	550mm	780mm	17.3kg
CBR2-XXL-3A-BL	Type 2 Bracket – Double XL (3 arms)	200kg	400kg	1120mm	550mm	780mm	22.6kg

Part code	Description	Safe working load*	Max load	Crossbar	Upright	Support arm	Weight
CBR2-XL-3A	Type 2 Bracket – XL (3 arms)	250kg	500kg	1040mm	550mm	660mm	21.5kg
CBR2-XXL-3A	Type 2 Bracket – Double XL (3 arms)	200kg	400kg	1040mm	550mm	780mm	22.6kg

Part code	Description	Safe working load	Crossbar	Arm length	Weight
CBR2-EL	Economy bracket with crossbar	70kg*	800mm	550mm	3.73kg
CBE-140	Economy bracket with crossbar	140kg*	1000mm	550mm	5.5kg

* All brackets are tested to twice the safe working loads at an independent UK facility.

CONDENSING BRACKETS

Easy-FIT

STAINLESS STEEL WALL MOUNTING BRACKETS

Part code	Description	Specification
CBR2-M-SS	Condenser Mounting Bracket	Type 2 - 316SS 90kg
CBR2-L-SS	Condenser Mounting Bracket	Type 2 316SS - 140kg
CBR2-XL-SS	Condenser Mounting Bracket	Type 2 316SS-160kg

Anti-Vibration Mounting Bolts

The anti-vibration mounting bolts are in a convenient pack of 4. Each pack can be used with our wall brackets and is used as a method to absorb the vibrations generated by an ASHP or condensing unit.

Code	Description	For use with	Pack Qty
AVMB-1	Anti-vibration Mounting Bolts	All brackets	4

AVMB-1

CONDENSING BRACKETS AND TRAYS

INSTALL+

CANTILEVER ARMS / CANTILEVER ARM KITS

These ready-made, hot-dipped galvanised steel cantilever arms with 14mm diameter holes, offer a quick and easy method of supporting condensing units on external walls. Available in straight or webbed versions, in a variety of lengths. This is a low cost option to mounting AC units or ASHP's. The cantilever arm kits come with all of the fixings needed for a quick and easy installation.

Part code	Description	Safe working load*	Length	Weight
CA-150-S	Cantilever arm – Single 150mm	250kg	150mm	0.8kg
CA-300-S	Cantilever arm – Single 300mm	250kg	300mm	1kg
CA-450-S	Cantilever arm – Single 450mm	250kg	450mm	1.4kg
CA-600-S	Cantilever arm – Single 600mm	190kg	600mm	2kg
CA-750-S	Cantilever arm – Single 750mm	150kg	750mm	2.4kg
CA-900-S	Cantilever arm – Single 900mm	120kg	900mm	3kg

CA-600-W	Cantilever arm – Webbed 600mm	190kg	600mm	2.6kg
CA-750-W	Cantilever arm – Webbed 750mm	150kg	750mm	3kg
CA-950-W	Cantilever arm – Webbed 950mm	150kg	950mm	3kg
CA-1200-W	Cantilever arm – Webbed 1200mm	150kg	1200 mm	3kg

CA-600-D	Cantilever arm – Double 600mm	243kg	600mm	3.7kg
CA-750-D	Cantilever arm – Double750mm	205kg	750mm	4.5kg
CA-900-D	Cantilever arm – Double 900mm	140kg	900mm	5.6kg
CA-1200-D	Cantilever arm – Double 1200mm	140kg	1200mm	5.6kg

Cantilever Webbed Arm

Cantilever Single Arm

Part code	Description	Height or equivalent	Width or equivalent	Length or equivalent	Weight	*Safe working load
CA-450-KIT	Cantilever arm kit - 450mm	750mm	41mm	450mm	8kg	250kg per arm
CA-600-KIT	Cantilever arm kit - 600mm	750mm	41mm	600mm	9kg	190kg per arm
CA-750-HKIT	Cantilever arm kit - 750mm	750mm	41mm	750mm	8kg	250kg per arm
CA-900-KIT	Cantilever arm kit - 900mm	900mm	41mm	900mm	8kg	250kg per arm

Cantilever Kit

DiversiTech® INTERNATIONAL   Glaisdale Drive East I Nottingham NG8 4LY I United Kingdom

CONDENSING BRACKETS

LIGHTWEIGHT CONDENSATE TRAYS

These 100% rust-free, UV stabilised, rigid, reinforced PVC condensate collection trays will fit any make of bracket. At less than 1kg, they are much easier to handle than metal trays and the tapered outlet fits a 16mm or 18mm hose pipe

Part code	Description	Width	Length
CCT-790	Lightweight tray - small	390mm	790mm
CCT-940	Lightweight tray - large	420mm	940mm

METAL CONDENSATE TRAYS

These metal trays have a convex profile and a recessed surface flush, drain hose adaptor, minimising the amount of standing water left in the tray. Supplied with fixing arms for mounting to all Pump House brackets. For improved corrosion resistance all metal now receives a 100% zinc plating, followed by a hard ED coating, before being finished with an external grade polyester powder coating to RAL 7032.

Part code	Description	Width	Length	Weight
CCTM-800	Metal tray - small	400mm	800mm	5.23kg
CCTM-1080	Metal tray - 1080mm	500mm	1080mm	7.5kg
CCTM-1100	Metal tray - medium	400mm	1100mm	6.9kg
CCTM-1300	Metal tray - 1300mm	550mm	1300mm	8.8kg
CCTM-1400	Metal tray - large	400mm	1400mm	8.3kg

Part code	Description	Width	Length	Depth
CCTM01420-BL	Metal tray	1420mm	500mm	25mm

FLOOR BRACKET KIT

When units are mounted at floor level, condensate discharge needs to be directed towards a drain or soakaway to avoid condensate causing a slip hazard. This floor bracket kit allows the metal tray to be mounted onto a flexi foot kit. The ASHP can then be mounted onto the bracket.

Part code	Description	For use with	Pack qty
CCTM-FLOOR-BRKT-KIT	Stainless steel brackets with fixings	Flexi Feet / trays	4
CCTM-FLOOR-BRKT-KIT-3	Stainless steel brackets with fixings (3 foot version)	Flexi Feet / trays	4

TRUNKING

INSTALL+

INABA DENKO TRUNKING

INABA DENKO

The NEW range of Inaba Denko internal and external trunking will ensure that the air conditioning refrigeration pipes are protected with a professional finish. The three colours - black, ivory and white will match most brands of condensing units available, UV resistant, fire proof and can be painted to suit many indoor and outdoor applications.

■ STRAIGHT DUCT

Part code	Description
ID-NSD-100-I	Slimduct - 100mm - 2000mm - Ivory
ID-NSD-100-W	Slimduct - 100mm - 2000mm - White
ID-SD-100-K	Slimduct - 100mm - 2000mm - Black
ID-SD-100-B	Slimduct - 100mm x 2000mm - Brown
ID-NSD-75-I	Slimduct - 75mm - 2000mm - Ivory
ID-NSD-75-W	Slimduct - 75mm - 2000mm - White
ID-SD-75-K	Slimduct - 75mm - 2000mm - Black
ID-SD-75-B	Slimduct - 75mm - 2000mm - Brown

■ 90° VERTICAL ELBOW

Part code	Description
ID-SC-100-I	Slimduct - 100mm Elbow Bend - Ivory
ID-SC-100-W	Slimduct - 100mm Elbow Bend - White
ID-SC-100-K	Slimduct - 100mm Elbow Bend - Black
ID-SC-75-I	Slimduct - 75mm Elbow Bend - Ivory
ID-SC-75-W	Slimduct - 75mm Elbow Bend - White
ID-SC-75-K	Slimduct - 75mm Elbow Bend - Black
ID-SC-75-B	Slimduct - 75mm Elbow Bend - Brown

■ 45° VERTICAL ELBOW

Part code	Description
ID-SCF-100-I	Slimduct - 100mm 45 Degree Elbow Bend - Ivory
ID-SCF-100-W	Slimduct - 100mm 45 Degree Elbow Bend - White
ID-SCF-100-K	Slimduct - 100mm 45 Degree Elbow Bend - Black
ID-SCF-100-B	Slimduct - 100mm 45 Deg Elbow Bend - Brown
ID-SCF-75-I	Slimduct - 75mm 45 Degree Elbow Bend - Ivory
ID-SCF-75-W	Slimduct - 75mm 45 Degree Elbow Bend - White
ID-SCF-75-K	Slimduct - 75mm 45 Degree Elbow Bend - Black
ID-SCF-75-B	Slimduct - 75mm 45 Deg Elbow Bend - Brown

■ REDUCER

Part code	Description
ID-SDR-100-75-I	Slimduct - 100-75mm Reducer Joint - Ivory
ID-SDR-100-75-W	Slimduct - 100-75mm Reducer Joint - White
ID-SDR-100-75-K	Slimduct - 100-75mm Reducer Joint - Black

RAL COLOURS
■ BLACK: MUNSELL N-2.0
□ WHITE: MUNSELL N9.0
■ IVORY: MUNSELL 5Y8/1
■ BROWN: MUNSELL 10YR3

TRUNKING

INABA DENKO TRUNKING

INABA DENKO

■ FLEXIBLE JOINT

Part code	Description
ID-SF-100-800-I	Slimduct - 100mm - 800mm Flexible Joint - Ivory
ID-SF-100-800-W	Slimduct - 100mm - 800mm Flexible Joint - White
ID-SF-100-800-K	Slimduct - 100mm - 800mm Flexible Joint - Black
ID-SF-100-800-B	Slimduct - 100mm - 800mm Flexible Joint - Brown
ID-SF-75-500-I	Slimduct - 75mm - 500mm Flexible Joint - Ivory
ID-SF-75-500-W	Slimduct - 75mm - 500mm Flexible Joint - White
ID-SF-75-500-K	Slimduct - 75mm - 500mm Flexible Joint - Black
ID-SF-75-500-B	Slimduct - 75mm - 500mm Flexible Joint - Brown

■ COUPLER

Part code	Description
ID-SJ-100-I	Slimduct - 100mm Connection Piece - Ivory
ID-SJ-100-W	Slimduct - 100mm Connection Piece - White
ID-SJ-100-K	Slimduct - 100mm Connection Piece - Black
ID-SJ-100-B	Slimduct - 100mm Connection Piece - Brown
ID-SJ-75-I	Slimduct - 75mm Connection Piece - Ivory
ID-SJ-75-W	Slimduct - 75mm Connection Piece - White
ID-SJ-75-K	Slimduct - 75mm Connection Piece - Black
ID-SJ-75-B	Slimduct - 75mm Connection Piece - Brown

■ 90° FLAT ELBOW

Part code	Description
ID-SK-100-I	Slimduct - 100mm 90 Degree Flat Bend - Ivory
ID-SK-100-W	Slimduct - 100mm 90 Degree Flat Bend - White
ID-SK-100-K	Slimduct - 100mm 90 Degree Flat Bend - Black
ID-SK-100-B	Slimduct - 100mm 90 Deg Flat Bend - Brown
ID-SK-75-I	Slimduct - 75mm 90 Degree Flat Bend - Ivory
ID-SK-75-W	Slimduct - 75mm 90 Degree Flat Bend - White
ID-SK-75-K	Slimduct - 75mm 90 Degree Flat Bend - Black
ID-SK-75-B	Slimduct - 75mm 90 Deg Flat Bend - Brown

■ 45° FLAT ELBOW

Part code	Description
ID-SKF-100-I	Slimduct - 100mm 45 Degree Flat Bend - Ivory
ID-SKF-100-W	Slimduct - 100mm 45 Degree Flat Bend - White
ID-SKF-100-K	Slimduct - 100mm 45 Degree Flat Bend - Black
ID-SKF-100-B	Slimduct - 100mm 45 Deg Flat Bend - Brown
ID-SKF-75-I	Slimduct - 75mm 45 Degree Flat Bend - Ivory
ID-SKF-75-W	Slimduct - 75mm 45 Degree Flat Bend - White
ID-SKF-75-K	Slimduct - 75mm 45 Degree Flat Bend - Black
ID-SKF-75-B	Slimduct - 75mm 45 Deg Flat Bend - Brown

RAL COLOURS
BLACK: MUNSELL N-2.0
WHITE: MUNSELL N9.0
IVORY: MUNSELL 5Y8/1
BROWN: MUNSELL 10YR3

TRUNKING

INABA DENKO TRUNKING

INABA DENKO

■ T JOINT

Part code	Description
ID-ST-100-I	Slimduct - 100mm T Joint - Ivory
ID-ST-100-W	Slimduct - 100mm T Joint - White
ID-ST-100-K	Slimduct - 100mm T Joint - Black
ID-ST-100-B	Slimduct - 100mm T-Joint - Brown
ID-ST-75-I	Slimduct - 75mm T Joint - Ivory
ID-ST-75-W	Slimduct - 75mm T Joint - White
ID-ST-75-K	Slimduct - 75mm T Joint - Black
ID-ST-75-B	Slimduct - 75mm T-Joint - Brown

■ WALL INLET

Part code	Description
ID-SW-100-I	Slimduct - 100mm Wall Cover - Ivory
ID-SW-100-W	Slimduct - 100mm Wall Cover - White
ID-SW-100-K	Slimduct - 100mm Wall Cover - Black
ID-SW-100-B	Slimduct - 100mm Wall Cover - Brown
ID-SW-75-I	Slimduct - 75mm Wall Cover - Ivory
ID-SW-75-W	Slimduct - 75mm Wall Cover - White
ID-SW-75-K	Slimduct - 75mm Wall Cover - Black
ID-SW-75-B	Slimduct - 75mm Wall Cover - Brown

■ WALL CAP

Part code	Description
ID-SWC-100-I	Slimduct - 100mm Wall Rosette - Ivory
ID-SWC-100-W	Slimduct - 100mm Wall Rosette - White
ID-SWC-100-K	Slimduct - 100mm Wall Rosette - Black
ID-SWC-100-B	Slimduct - 100mm Wall Rossette - Brown
ID-SWC-75-I	Slimduct - 75mm Wall Rosette - Ivory
ID-SWC-75-W	Slimduct - 75mm Wall Rosette - White
ID-SWC-75-K	Slimduct - 75mm Wall Rosette - Black
ID-SWC-75-B	Slimduct - 75mm Wall Rossette Brown

■ TIE CLIP KIT

Part code	Description
ID-SL-300	Slimduct - Tie Clip

RAL COLOURS
BLACK: MUNSELL N-2.0
WHITE: MUNSELL N9.0
IVORY: MUNSELL 5Y8/1
BROWN: MUNSELL 10YR3

TRUNKING

INABA DENKO TRUNKING

INABA DENKO

■ DUCT END

Part code	Description
ID-SEN-100-I	Slimduct - 100mm Duct End - Ivory
ID-SEN-100-W	Slimduct - 100mm Duct End - White
ID-SEN-100-K	Slimduct - 100mm Duct End - Black
ID-SEN-100-B	Slimduct - 100mm Duct End - Brown
ID-SE-75-I	Slimduct - 75mm Duct End - Ivory
ID-SE-75-W	Slimduct - 75mm Duct End - White
ID-SE-75-K	Slimduct - 75mm Duct End - Black
ID-SE-75-B	Slimduct - 75mm Duct End - Brown

■ OFFSET BEND

NEW

Part code	Description
ID-SIF-75-I	Slimduct - 75mm Offset bend - Ivory
ID-SIF-75-W	Slimduct - 75mm Offset bend - White
ID-SIF-75-K	Slimduct - 75mm Offset bend - Black
ID-SIF-75-B	Slimduct - 75mm Offset bend - Brown
ID-SIF-100-I	Slimduct - 100mm Offset bend - Ivory
ID-SIF-100-W	Slimduct - 100mm Offset bend - White
ID-SIF-100-K	Slimduct - 100mm Offset bend - Black
ID-SIF-100-B	Slimduct - 100mm Offset bend - Brown

■ DRAIN HOSE

Part code	Description
ID-DH-14	Drain Hose - Ivory-14mm (20mm box)
ID-DH-16	Drain Hose - Ivory-16mm (20mm box)

■ SLIM DUCT CUTTER

Part code	Description
ID-VD-2100	Slim Duct Cutter

■ BIG TIE

Part code	Description
ID-BT-250	Bigtie - 250mm
ID-BT-350	Bigtie - 350mm

RAL COLOURS
BLACK: MUNSELL N-2.0
WHITE: MUNSELL N9.0
IVORY: MUNSELL 5Y8/1
BROWN: MUNSELL 10YR3

TRUNKING

INABA DENKO TRUNKING

INABA DENKO

INSTALL +

RAL COLOURS
BLACK: MUNSELL N-2.0
WHITE: MUNSELL N9.0
IVORY: MUNSELL 5Y8/1
BROWN: MUNSELL 10YR3

■ **CEILING COVER**

Part code	Description
ID-SP-100-I	Slimduct - 100mm Flat Rosette Ivory
ID-SP-100-W	Slimduct - 100mm Flat Rosette White
ID-SP-100-K	Slimduct - 100mm Flat Rosette Black
ID-SP-100-B	Slimduct - 100mm Flat Rossette Brown
ID-SP-75-I	Slimduct - 75mm Flat Rosette Ivory
ID-SP-75-W	Slimduct - 75mm Flat Rosette White
ID-SP-75-K	Slimduct - 75mm Flat Rosette Black
ID-SP-75-B	Slimduct - 75mm Flat Rossette Brown

SPEEDICHANNEL TRUNKING

SpeediChannel

SpeediChannel® is a system used to house air conditioning refrigerant pipes and services. Made out of rigid PVC, the colours are fadeproof, UV resistant and fireproof. The trunking contributes to reducing energy consumption. Suitable for indoor and outdoor use, it can be painted to match its environment.

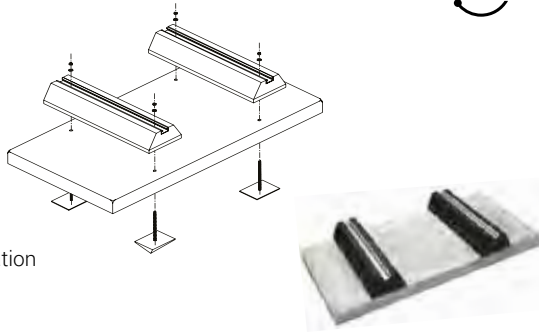| Description	Width	Ivory code	White code
Duct – 70mm – sold in 2 metre lengths	70mm	230-D3	230-D3W
Duct – 105mm – sold in 2 metre lengths	105mm	230-D4	230-D4W
Inside Elbow 90 Degree	70mm	230-EB3	230-EB3W
Inside Elbow 90 Degree	105mm	230-EB4	230-EB4W
Outside Elbow 90 Degree	70mm	230-EIN3	230-EIN3W
Outside Elbow 90 Degree	105mm	230-EIN4	230-EIN4W
Flat Bend 90 Degree	70mm	230-FB3	230-FB3W
Flat Bend 90 Degree	105mm	230-FB4	230-FB4W
Flat Bend 45 Degree	70mm	230-FB453	230-FB453W
Flat Bend 45 Degree	105mm	230-FB454	230-FB454W
Adjust Flat Bend 45-90 Degree	70mm	230-AFB3	230-AFB3W
Adjust Flat Bend 45-90 Degree	105mm	230-AFB4	230-AFB4W
Flexible Hose Kit	70mm	230-FH3-KIT	230-FH3W-KIT
Flexible Hose Kit	105mm	230-FH4-KIT	230-FH4W-KIT
Flat Rosette	70mm	230-FR3	230-FR3W
Flat Rosette	105mm	230-FR4	230-FR4W
Long Flat Elbow 90 Degree	70mm	230-LFB3	230-LFB3W
Long Flat Elbow 90 Degree	105mm	230-LFB4	230-LFB4W
Duct Cap	70mm	230-DC3	230-DC3W
Duct Cap	105mm	230-DC4	230-DC4W
Duct End	70mm	230-DE3	230-DE3W
Duct End	105mm	230-DE4	230-DE4W
Connection Piece	70mm	230-CP3	230-CP3W
Connection Piece	105mm	230-CP4	230-CP4W
Reducer Joint	105mm	230-RJ4	230-RJ4W
T Joint	105mm	230-TJ4	230-TJ4W
Soffit Inlet	70mm	230-SF3	230-SF3W
Soffit Inlet	105mm	230-SF4	230-SF4W
Wall Cover	70mm	230-WC3	230-WC3W
Wall Cover	105mm	230-WC4	230-WC4W
Wall Rosette	70mm	230-WR3	230-WR3W
Wall Rosette	105mm	230-WR4	230-WR4W

MOUNTING

INSTALL+
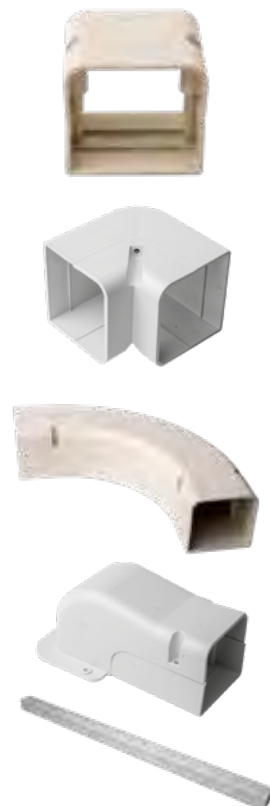
Flexi Lite Slab & Foot Kit

A low cost, lightweight floor mounting solution for air conditioning equipment and air source heat pumps.

Easy to transport, locate and construct.

The kit comes complete with two anti-vibration feet, a lightweight slab and all the fixings.

Part code	Description	Specifications
FF-UC3-S	Flexi Lite Kit - small	900 x 600 x 175
FF-UC3-M	Flexi Lite Kit - medium	1050 x 600 x 175
FF-UC3	Flexi-Lite Slab Kit	1200 x 600 x 175
FF-UC3-3	Flexi lite Slab Kit - 3 FEET	1200 x 600 x 175
FF-UC3-XL	Flexi-Lite Slab Kit - extra large	1650 x 865 x 175
FF-UC3-3XL	Flexi-Lite Slab Kit - 3 FEET - extra large	1650 x 865 x 175
FF-UC3-3XL-150	Flexi-Lite Slab Kit - 3 FEET (150mm feet) - extra large	1650 x 865 x 225

SMALL

MEDIUM

LARGE

EXTRA LARGE

3-FOOT

MOUNTING

INSTALL⁺

Ultralite® Slab

Don't be fooled - Ultralite® Slabs look and perform like a concrete slab, starting at only 7kg, they are lightweight and very easy to handle and transport. So give your aching back a rest and use Ultralite® slabs to mount AC units and air source heat pumps.
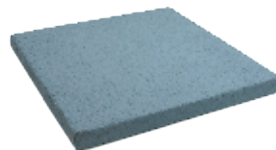
Code	Description	Dimensions mm (HxWxD)	Weight	Safe working load*
UC1636-3	Ultralite equipment pad	75x400x900	7kg	300kg
UC2424-3	Ultralite equipment pad	75x600x600	7kg	300kg
UC2436-3	Ultralite equipment pad	75x600x900	12kg	485kg
UC2442-3	Ultralite equipment pad	75x600x1050	16kg	595kg
UC2448-3	Ultralite equipment pad	75x600x1200	16kg	700kg

INSTALL⁺

k•klamp

- **Reduces installation time**
- **Provides complete vapour barrier without gluing or taping**
- **Insulation wall thicknesses – 3/8", 1/2", 3/4" and 1"**
- **Pipe diameters from 1/4" up to 4-1/8"**

GRIPS AND SEALS THE INSULATION

K-KLAMP

PIPE AND INSULATION CLAMP

CLAMPS & CLIPS

PAGE 44

MOUNTING

Mounting Blocks

These mounting blocks are lightweight, 100% rust-free, UV stabilised and manufactured from reinforced PVC. Suitable for mounting air conditioning units and domestic air source heat pumps.
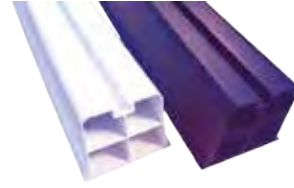
The blocks reduce vibration and are supplied with anti-slip strips on the base along with fixings for a simple rapid installation. End caps are available to provide a professional finish. CMB-350 & CMB-450 are sold in boxes of 12. CMB-1000 are sold in pairs.

Code (Black)	Code (White)	Description	Dimensions mm (HxWxL)	Weight	Safe Working Load*
CMB-350		Mounting Blocks – 350mm	100x100x350	0.6kg	240kg
CMB-450	CMB-450-W	Mounting Blocks – 450mm	100x100x450	0.7kg	240kg
CMB-1000	CMB-1000-W	Mounting Blocks – 1000mm	100x100x1000	1.6kg	240kg

Rubber & Cork Mounting Strips & Pads

Anti-vibration mounting strips / pads are a low cost option for mounting air conditioning units, air source heat pumps and other equipment, providing vibration reduction and sound dampening.

Available in recycled rubber and cork-rubber in various sizes. Rubber AVM Pad comes in three sizes (steel plates are in the larger sizes).

Anti Vibration Mounting Strips

Code	Description	Dimensions mm (WxL)	Thickness mm	Weight
AVMS-1	Anti-vibration Mounting Strip – Rubber	50x500	15	0.4kg
AVMS-2	Anti-vibration Mounting Strip – Rubber	75x1000	15	1kg
AVMS-3	Anti-vibration Mounting Strip – Rubber	75x1200	15	1.7kg
AVMS-4	Anti-vibration Mounting Strip – Rubber	100x1000	15	1.4kg
AVMS-CR-3	Anti-vibration Mounting Strip – Cork/Rubber	75x1200	12.5	0.8kg
AVMS-CR-4	Anti-vibration Mounting Strip – Cork/Rubber	100x1200	12.5	0.9kg

Code	Description	Dimensions mm (HxWxL)	Weight	Safe Working Load*
AVM-PAD-1	Rubber AVM Pad – 330mm	45x300x300	3.2kg	200kg
AVM-PAD-2	Rubber AVM Pad – 600mm with steel plates	30x105x 600	2.8kg	150kg
AVM-PAD-3	Rubber AVM Pad – 1000mm with steel plates	30x500x1000	22kg	300kg

MOUNTING

INSTALL⁺

## EVA™ Pads / Cork Rubber Anit-Vibration Pads

EVA™ anti-vibration pads are designed to effectively eliminate vibrations and reduce noise levels from equipment such as compressors, condensing units and air source heat pumps. Out performing cork and rubber by 3:1, the EVA pad has a special composite foam centre and is resistant to most oils & chemicals.

The cork is laminated between two corrugated pads to reduce vibration and noise. Designed to withstand 3.5kg per cm³. Ideal for air conditioners, compressors, cooling towers or anywhere where vibration control is needed.
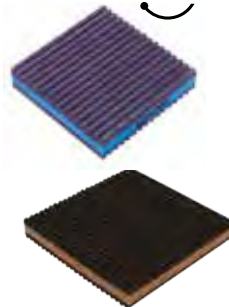
Code EVA	Code Cork / Rubber	Description	Dimensions mm (HxWxL)	Weight	Safe Working Load*
MP-2E	MP-2C	Pad – 50mm	20x50x50	0.04kg	3.5kg per cm³
MP-3E	MP-3C	Pad – 80mm	20x80x80	0.08kg	3.5kg per cm³
MP-4E	MP-4C	Pad – 100mm	20x100x100	0.1kg	3.5kg per cm³
MP-6E	MP-6C	Pad – 150mm	20x150x150	0.3kg	3.5kg per cm³
MP-12E	MP-12C	Pad – 305mm	20x305x305	1.4kg	3.5kg per cm³
MP-18E	MP-18C	Pad – 460mm	20x460x460	3kg	3.5kg per cm³

Rubber Anti-Vibration Pad

Highest quality oil resistant pads, designed to withstand 3.5kg per cm³. The rubber pads are corrugated on both sides. Ideal for air conditioners, compressors or anywhere where vibration control is needed.

Code	Description	Dimensions mm (HxWxL)	Weight	Safe Working Load*
MP-2	Rubber Anti-vibration Pad – 50mm	20x50x50	0.04kg	3.5kg per cm³
MP-3	Rubber Anti-vibration Pad – 80mm	20x80x80	0.05kg	3.5kg per cm³
MP-4	Rubber Anti-vibration Pad – 100mm	20x100x100	0.1kg	3.5kg per cm³
MP-6	Rubber Anti-vibration Pad – 150mm	20x150x150	0.2kg	3.5kg per cm³
MP-18	Rubber Anti-vibration Pad – 460mm	20x460x460	1.8kg	3.5kg per cm³

ISO-Cube Anti-Vibration Pads

Natural rubber pads, designed to reduce vibration and noise emanating from refrigeration and air conditioning equipment. The circular design in each pad offers a suction cup effect, which eliminates the need to bolt the pads down. A standard 18″ (46cm) pad is divided into eighty-one 2″ (5cm) segments, each of which may be cut or torn to provide smaller pads.

Code	Description	Dimensions mm (HxWxL)	Weight	Safe Working Load*
ISO-4	ISO Cube Natural Rubber Pads – 100mm	20x100x100	0.18kg	12.6kg per cm³
ISO-18	ISO Cube Natural Rubber Pads– 460mm	20x460x460	3.8kg	12.6kg per cm³

MOUNTING

Quick Sling®

Quick Sling stands offer light and easy-assembly support for outdoor a/c condensing units and heat pumps. Ideal for raising the condensing unit height in surface installations. The elevated height allows for ease of installation, maintenance and service. Available in three height options.

• Flat-packed for easy handling, transport and storage
• Quick and easy to assemble
• Adjustable to suit outdoor units with fixing feet centres up to 700mm (L) and 430mm (W)
• Each 150mm square foot is height adjustable (up to 30mm) to accommodate uneven surfaces
• Includes anti-vibration mounting bolts
• Epoxy powder coated finish

QSMS1201   QSMS1801   QSMS2401

Code	Description	Length mm	Width mm	Height mm	Safe Working Load	Weight
QSMS1201	Quick Sling Stand – Low	1056	941	305	180kg	10kg
QSMS1801	Quick Sling Stand – Medium	1056	941	450	180kg	13kg
QSMS2401	Quick Sling Stand – High	1056	941	600	180kg	16kg

PORTABLES

INSTALL+

Ⓐ energy efficiency

PORTABLES - COOL ONLY & HEAT / COOL PUMP

The portable air conditioners are suitable for offices, computer rooms and light commercial use. The cooling only model is ideal for cooling flats, conservatories or loft conversions during hot summer months. The heat and cool model can be used as an energy efficient form of heating along with cooling. The units come with a hose, tray, remote control and wall kit. Spare parts are available upon request - please enquire for more details.

PAC-C-12-R290

Code	Description	Cool capacity Btu/kW	Heat capacity Btu/kW	Watts	Amps	Air flow volume	EER	COP	Sound power level dBA
PAC-C-12-R290	Portable (cooling)	12,000 / 3.5	N/A	1350	5.9	420m³/h	2.6	N/A	56
PAC-H-12-R290	Portable (heat pump)	12,000 / 3.5	N/A	1350	5.9	420m³/h	2.6	N/A	56

Code	Description	Height	Width	Depth	Weight	Hose length	Refrigerant	Cooling area
PAC-C-12-R290	Portable (cooling)	730mm	485mm	360mm	28kg	1.5m	R290	25-30m²
PAC-H-12-R290	Portable (heat pump)	730mm	485mm	360mm	28kg	1.5m	R290	25-30m²

WALL AIR CONDITIONER

Wall air conditioners, also known as through-the-wall or in-wall air conditioners, are designed to be a long-lasting fixture. These 12,000 btu 3.5kW air conditioners are mounted into a hole in the wall as a permanent installation. Meets EN14511 standard and EU commission regulation 206/2012. R32 Refrigerant. Supplied with remote controller, this proven, well tested design is suitable for areas up to 23m³.

Code	Description	Cool Capacity Btu / kW	Watts	Amps	Air Flow Volume
WAC-C-12-INV	Through-the-wall AC	12,000 / 3.5	1100	5.1	400m³/h

Code	Description	Height	Width	Depth	Weight	Refrigerant	Cooling Area
WAC-C-12-INV	Through-the-wall AC	400mm	560mm	670mm	42kg	R32	16-23m²

UNIVERSAL REMOTE CONTROLLER

This universal air-conditioning remote controller is compatible with units from all major air conditioning manufacturers. This easy to use, time saving tool is perfect for maintaining and servicing any air conditioning unit.

Code	Max range	Batteries	Length	Width	Height	Weight
KT-1028	8m	AAA x 2	130mm	46mm	16mm	50g

CLAMPS AND CLIPS

Cushion Clamps

Cushion Clamps are the industry established method of supporting copper refrigerant tube, especially for multiple pipe runs. The zinc dichromate plating provides excellent corrosion resistance and the polymer insert ensures a positive grip, absorbs shock and vibration and prevents galvanic corrosion.

Code	Pipe Diameter	Pack qty
CC-004	1/4	10
CC-006	3/8	10
CC-008	1/2	10
CC-010	5/8	10
CC-012	3/4	10
CC-014	7/8	10
CC-018	1-1/8	10

Code	Pipe Diameter	Pack qty
CC-022	1-3/8	10
CC-026	1-5/8	10
CC-034	2-1/8	5
CC-042	2-5/8	5
CC-050	3-1/8	5
CC-058	3-5/8	5
CC-066	4-1/8	5

Threaded Rod Hangers

These clamps support a pair of flow and return insulated copper air conditioning pipes on either M8 or M10 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. Black zinc coating matches the insulation colour and offers corrosion resistance.

Code	Description	Liquid Pipe Diameter (inches)	Gas Pipe Diameter (inches)	Threaded Rod Diameter (inches)	Pack Quantity
TRH-1	Threaded Rod Hanger – Size 1	1/4	1/2	M8/M10	10
TRH-2	Threaded Rod Hanger – Size 2	3/8	5/8	M8/M10	10
TRH-3	Threaded Rod Hanger – Size 3	1/2	7/8	M8/M10	10
TRH-4	Threaded Rod Hanger – Size 4	5/8	1-1/8	M8/M10	10

Grip Fit Clamps

The asymmetric design provides a perfect fit for any one of four pairs of flow and return insulated refrigerant pipes. An 8mm hole allows the clamps to be fixed directly to any flat surface, such as a wall or ceiling. The hinged design allows the product to be installed quickly.

Code	Description	Liquid Pipe Diameter (inches)	Gas Pipe Diameter (inches)	Pack Quantity
GFC-1	Grip Fit Clamp – Size 1	1/4	1/2	10
GFC-2	Grip Fit Clamp – Size 2	3/8	5/8	10
GFC-3	Grip Fit Clamp – Size 3	1/2	7/8	10
GFC-4	Grip Fit Clamp – Size 4	5/8	1-1/8	10

CLAMPS AND CLIPS

BACK PLATE 810-HD

Back plate for mounting M8/M10 threaded rod.
Secure threaded rod to a wall or ceiling safely.
Our Back Plate is used for Mounting M8 / M10
Threaded Rod safely to a wall or ceiling. Made from
zinc plated steel, this back plate has a thickness of
3mm and comes in a box of 50.

Part code	Description	Material	Length	Width	Quantity
BackPlate-810-HD	Back Plate for Mounting M8/M10 Threaded Rod	2.5mm Zinc Plated Steel	80	30	50

K-KLAMP - PIPE AND INSULATION CLAMP

K-KLAMP eliminates having to double-wrap, glue
and tape the insulation on strut-mounted clamps.
K-KLAMP pipe and insulation coupling reduces the
time required to insulate copper tubing used for
refrigerant lines. Our clamp allows sections of closed-
cell insulation to be secured at fixing points.

Part code	Insulation wall thickness			
	3/8"	1/2"	3/4"	1"
1/4"	K38-14	-	K34-14	-
3/8"	K38-38	K12-38	K34-38	-
1/2"	K38-12	K12-12	K34-12	K100-12
5/8"	K38-58	K12-58	K34-58	K100-58
3/4"	K38-34	K12-34	K34-34	K100-34
7/8"	K38-78	K12-78	K34-78	K100-78
1"	K38-100	K12-100	-	-
1-1/8"	K38-118	K12-118	K34-118	K100-118
1-3/8"	K38-138	K12-138	K34-138	K100-138
1-5-8"	K38-158	K12-158	K34-158	K100-158
2-1/8"	K38-218	K12-218	K34-218	K100-218
2-5/8"	-	K12-258	K34-258	K100-258
3-1/8"	-	K12-318	K34-318	K100-318
3-5/8"	-	K12-358	K34-358	K100-358
4-1/8"	-	K12-418	K34-418	K100-418

Klo-Shure Code	Discharge size (inches)
729037	Klo-Shure 3/8" ID x 1-1/2"
729050	Klo-Shure 1/2" ID x 1-1/2"
729062	Klo-Shure 5/8" ID x 1-1/2"
729087	Klo-Shure 7/8" ID x 1-1/2"
729112	Klo-Shure 1-1/8" ID x 1-1/2"
729137	Klo-Shure 1-3/8" ID x 1-1/2"
729162	Klo-Shure 1-5/8" ID x 1-1/2"
729212	Klo-Shure 2-1/8" ID x 1-1/2"
729262	Klo-Shure 2-5/8" ID x 1-1/2"
729312	Klo-Shure 3-1/8" ID x 1-1/2"
729412	Klo-Shure 4-1/8" ID x 1-1/2"

CLAMPS AND CLIPS

HINGED LINED PIPE CLAMP

These hinged lined pipe clamps are suitable for supporting all types of pipe work including HVAC, boiler and drain. They come with noise supressing rubber strips: 17dB(A) according to ISO 3822-1.

Part code	Description	Quantity
RLC-020-GS	Single Hinged Pipe Clamp M8-10 lined 3/8" 15-19mm	Box of 50
RLC-024-GS	Single Hinged Pipe Clamp M8-10 lined 1/2" 20-24mm	Box of 50
RLC-029-GS	Single Hinged Pipe Clamp M8-10 lined 3/4" 25-29mm	Box of 50
RLC-035-GS	Single Hinged Pipe Clamp M8-10 lined 1" 32-36mm	Box of 50
RLC-042-GS	Single Hinged Pipe Clamp M8-10 lined 1-1/4" 40-45mm	Box of 50
RLC-053-GS	Single Hinged Pipe Clamp M8-10 lined 1-1/2" 48-53mm	Box of 50
RLC-065-GS	Single Hinged Pipe Clamp M8-10 Lined 2" 58-63mm	Box of 50

RUBBER-LINED UNIVERSAL PIPE CLAMP

The M8-M10 rubber-lined pipe clamp are suitable for supporting all types of pipework including HVAC, boiler and drain. They come with noise supressing rubber strips: 17dB(A) according to ISO 3822-1.

Part code	Description	Quantity
RLC-015	Pipe Clamp M8-10 Rubber lined 1/4" 11/15mm	Box of 50
RLC-020	Pipe Clamp M8-10 lined 3/8" 14-19mm	Box of 50
RLC-024	Pipe Clamp M8-10 lined 1/2" 20-24mm	Box of 50
RLC-029	Pipe Clamp M8-10 lined 3/4" 25-29mm	Box of 50
RLC-035	Pipe Clamp M8-10 lined 1" 32-36mm	Box of 50
RLC-044	Pipe Clamp M8-10 lined 1-1/4" 37-44mm	Box of 50
RLC-050	Pipe Clamp M8-10 lined 1-1/2" 44-50mm	Box of 50
RLC-058	Pipe Clamp M8-10 lined 50-58mm	Box of 50
RLC-068	Pipe Clamp M8-10 lined 2" 58-68mm	Box of 50
RLC-078	Pipe Clamp M8-10 lined 2-1/2" 68-78mm	Box of 50
RLC-088	Pipe Clamp M8-10 lined 78-88mm	Box of 50
RLC-098	Pipe Clamp M8-10 lined 3" 88-98mm	Box of 25
RLC-108	Pipe Clamp M8-10 lined 3-1/2" 98-108mm	Box of 25
RLC-118	Pipe Clamp M8-10 lined 4" 108-118mm	Box of 25
RLC-128	Pipe Clamp M8-10 lined 118-128mm	Box of 25
RLC-138	Pipe Clamp M8-10 lined 128-138mm	Box of 25
RLC-148	Pipe Clamp M8-10 lined 135-148mm	Box of 25
RLC-164	Pipe Clamp M8-10 lined 151-164mm	Box of 25
RLC-175	Pipe Clamp M8-10 lined 6" 165-175mm	Box of 10
RLC-185	Pipe Clamp M8-10 lined 175-185mm	Box of 10
RLC-205	Pipe Clamp M8-10 lined 194-205mm	Box of 10

CLAMPS AND CLIPS

RPC channel clips

The RPC channel clip fits around the pipe and insulation. Ideal for multiple pipe runs, the one piece composite (nylon) alloy clamp absorbs shock and vibration. Quick and easy to install and suitable for temperatures -40°C to +140°C.

Code	Description	Tube OD (inches)	Pack Quantity
RPC-0014	RPC Channel Clip	1/4	10
RPC-0038	RPC Channel Clip	3/8	10
RPC-0012	RPC Channel Clip	1/2	10
RPC-0058	RPC Channel Clip	5/8	10
RPC-OO34	RPC Channel Clip	3/4	10
RPC-0078	RPC Channel Clip	7/8	10
RPC-0118	RPC Channel Clip	1-1/8	10
RPC-0138	RPC Channel Clip	1-3/8	10
RPC-0158	RPC Channel Clip	1-5/8	10

RPC studding clips

The studding clips from RPC have a unique way of attaching themselves to the threaded rod.

Simply insert the clip and snap to secure. The ratchet design locks the pipework in place. It will overcome the problems of using cable ties

Code	Stud Size	Tube OD (inches)	Pack Quantity
SC08-15	Studding Clip M8	5/8	10
SC08-20	Studding Clip M8	3/4	10
SC08-22	Studding Clip M8	7/8	10
SC08-25	Studding Clip M8	1	10
SC08-28	Studding Clip M8	1-1/8	10
SC08-32	Studding Clip M8	1-1/4	10
SC08-35	Studding Clip M8	1-3/8	10
SC08-40	Studding Clip M8	1-1/2	10
SC08-42	Studding Clip M8	1-5/8	10
SC08-50	Studding Clip M8	2	10
SC08-54	Studding Clip M8	2-1/8	10

Code	Stud Size	Tube OD (inches)	Pack Quantity
SC10-15	Studding Clip M10	5/8	10
SC10-20	Studding Clip M10	3/4	10
SC10-22	Studding Clip M10	7/8	10
SC10-25	Studding Clip M10	1	10
SC10-28	Studding Clip M10	1-1/8	10
SC10-32	Studding Clip M10	1-1/4	10
SC10-35	Studding Clip M10	1-3/8	10
SC10-40	Studding Clip M10	1-1/2	10
SC10-42	Studding Clip M10	1-5/8	10
SC10-50	Studding Clip M10	2	10
SC10-54	Studding Clip M10	2-1/8	10

Code	Description	Tube OD (inches)	Pack QTY
SC06-15	M6 STUD CLIP - 5/8"	5/8	10
SC06-20	M6 STUD CLIP - 3/4"	3/4	10
SC06-22	M6 STUD CLIP - 7/8"	7/8	10
SC06-25	M6 STUD CLIP - 1"	1	10
SC06-28	M6 STUD CLIP - 1-1/8"	1-1/8	10

Code	Description	Tube OD (inches)	Pack QTY
SC06-32	M6 STUD CLIP - 1-1/4"	1-1/4	10
SC06-35	M6 STUD CLIP - 1-3/8"	1-3/8	10
SC06-40	M6 STUD CLIP - 1-1/2"	1-1/2	10
SC06-42	M6 STUD CLIP - 1-5/8"	1-5/8	10
SC06-50	M6 STUD CLIP - 2"	2	10
SC06-54	M6 STUD CLIP - 2-1/8"	2-1/8	10

CLAMPS AND CLIPS

INSTALL+

RPC InsulClips

The InsulClips allows an uninterrupted vapour seal and eliminates the problem of sweating on metal fittings.

This makes the InsulClip the ideal product to secure the installation of the refrigerant pipes, allowing the vapour seal to run the length of the pipework without cutting the insulation material.

Made from a composite polyamide (nylon) alloy, which has similar tensile strength properties to nylon but better impact strength, especially at low temperatures.

Code	Tube OD (inches)	Pack Quantity
IC00-15	5/8	10
IC00-20	3/4	10
IC00-22	7/8	10
IC00-25	1	10
IC00-28	1-1/8	10
IC00-32	1-1/4	10
IC00-35	1-3/8	10
IC00-40	1-1/2	10
IC00-42	1-5/8	10
IC00-50	2	10
IC00-54	2-1/8	10

RPC Cable Tie Clips

Channel cable tie clips accommodate PVC or metal cable ties up to a width of 17mm. They come in three support base lengths of 50, 65 and 80mm. The channel clips are secured on the channel with a twist lock motion, ready for the cable tie to be inserted to secure the refrigeration pipework.

Clips can be used in temperatures ranging from -40 to 140˚C. They have a melting point of 220˚C. They can withstand pressures up to 40 MPa, with less than 4% deformation, and provide high resistance to mechanical stress creep. As well as resisting all know solvents, the clips have a low moisture sensitivity.

They also have stable electrical and vibration properties and a high resistance to UV light.

SC06-15
SC06-20
SC06-22
SC06-25
SC06-28
SC06-32
SC06-35
SC06-40
SC06-42
SC06-50
SC06-54

Insert into channel   Twist clockwise   Lock to secure

Code	Size (mm)	Pack Quantity
CTC-050	50	10
CTC-065	65	10
CTC-080	80	10

BRASS FITTINGS

INSTALL+

Short Machine Flare Nut

Code	Size (inches)	Pack Quantity
DN1-3	3/16	10
DN1-4	1/4	10
DN1-5	5/16	10
DN1-6	3/8	10
DN1-8	1/2	10
DN1-10	5/8	10
DN1-12	3/4	10
DN1-14	7/8	5

Short Forged Flare Nut

Code	Size (inches)	Pack Quantity
DNS4-4	1/4	10
DNS4-6	3/8	10
DNS4-8	1/2	10
DNS4-10	5/8	10
DNS4-12	3/4	10
DNS4-14	7/8	5

Flare Tee

Code	Size (inches)	Pack Quantity
DT2-4	1/4	10
DT2-6	3/8	10
DT2-8	1/2	10
DT2-10	5/8	10

Cap

Code	Size (inches)	Pack Quantity
DN5-4	1/4	10
DN5-6	3/8	10

Plug

Code	Size (inches)	Pack Quantity
DP2-4	1/4	10
DP2-6	3/8	10
DP2-8	1/2	10
DP2-10	5/8	10

Flare and MPT Elbow

Code	Size (inches)	Pack Quantity
DE1-4B	1/4	10
DE1-6C	3/8	10
DE1-8D	1/2	10
DE1-12E	5/8	10

Flare & MPT Red Elbow

Code	Size (inches)	Pack Quantity
DE1-6B	3/8 x 1/4 MPT	10
DE1-6D	3/8 x 1/2 MPT	10
DE1-8E	1/2 x 3/4 MPT	10
DE1-10D	5/8 x 1/2 MPT	10
DE1-12D	3/4 x 1/2 MPT	10

Flare Union

Code	Size (inches)	Pack Quantity
DU2-4	1/4	10
DU2-6	3/8	10
DU2-8	1/2	10
DU2-10	5/8	10
DU2-12	3/4	10

R410a & R32 Transitional Fitting

Code	Size (inches)	Pack Quantity
20128	5/16 x 1/4	1

BRASS AND ACCESS FITTINGS

INSTALL+

Flare Union x MPT

DU1-8B

Code	Size (inches)	Pack Quantity
DU1-4A	1/4 x 1/8 MPT	10
DU1-4B	1/4 x 1/4 MPT	10
DU1-6B	3/8 x 1/4 MPT	10
DU1-6C	3/8 x 3/8 MPT	10
DU1-6D	3/8 x 1/2 MPT	10
DU1-6E	3/8 x 3/4 MPT	10
DU1-8B	1/2 x 1/4 MPT	10
DU1-8C	1/2 x 3/8 MPT	10
DU1-8D	1/2 x 1/2 MPT	10
DU1-8E	1/2 x 3/4 MPT	10
DU1-10D	5/8 x 1/2 MPT	10
DU1-10E	5/8 x 3/4 MPT	10
DU1-12D	3/4 x 1/2 MPT	10
DU1-12E	3/4 x 3/4 MPT	10

Flare x Flare Swivel Union

DUS4-6

Code	Size (inches)	Pack Quantity
DUS4-4	1/4 x 1/4	10
DUS4-6	3/8 x 3/8	10
DUS4-8	1/2 x 1/2	10

Flare x FPT Union

DU3-6D

Code	Size (inches)	Pack Quantity
DU3-6C	3/8 x 3/8 FPT	10
DU3-6D	3/8 x 1/2 FPT	10
DU3-8C	1/2 x 3/8 FPT	10
DU3-8D	1/2 x 1/2 FPT	10
DU3-10D	5/8 x 1/2 FPT	10
DU3-10E	5/8 x 3/4 FPT	10

Access Fittings

VAU-24   VST-46   VST-44X   VA-3-346   VT-24

Code	Description	Size (inches)	Pack Quantity
VA-3-346	3-Way Solder Fitting	3/16 OD to 1/4 & 3/8	6
VA-34	Straight Solder Fitting	3/16 ODS x 1/4 ODF	6
VA-46	Straight Solder Fitting	1/4 ODS x 3/8 ODF	6
VA-68	Straight Solder Fitting	3/8 ODS x 1/2 ODF	6
VAU-24	Half Union	1/8 MPT	6
VAU-45	Half Union	1/4 MPT	6
VAX-3	Extended Copper Tube Fitting	1/4 SAE Flare with 3/16 OD x 1/8 ID with 2inch tail	6
VAX-4	Extended Copper Tube Fitting	1/4 SAE Flare with 1/4 OD x 3/16 ID with 2inch tail	6
VAX-4B	Extended Copper Tube Fitting	1/4 SAE Flare with 1/4 OD x 3/16 ID with 2inch tail	100
VAX-4B-6	Extended Copper Tube Fitting	1/4 SAE Flare with 1/4 OD x 3/16 ID with 6inch tail	1
VAX-5	Extended Copper Tube Fitting	1/4 SAE Flare with 5/16 OD x 1/4 ID with 2inch tail	3
VAX-5-PH	Extended Copper Tube Fitting	5/16 SAE Flare (R410a) with 1/4 OD x 3/16 ID with 2inch tail	1
VAX-6	Extended Copper Tube Fitting	1/4 SAE Flare with 3/8 OD x 5/16 ID with 2inch tail	3
VC-4	SAE Flare Cap 1/4	Plain Cap	12
VC-4R	SAE Flare Cap 1/4	Cap with Core Remover	12
VS-4	Access Fitting – Female Flare	Female 1/4 SAE Swivel Nut w/Depressor x 1/4 SAE male flare	3
VST-4	Swivel Tee 1/4	1/4 SAE Flare x 1/4 SAE Flare on run x 1/4 Female Swivel on branch	3
VST-44	Swivel Tee 1/4	1/4 SAE Flare x 1/4 Female Swivel on run x 1/4 SAE Flare on branch	3
VST-4X	Swivel Tee 1/4 with depressor	1/4 SAE Flare x 1/4 SAE Flare on run x 1/4 Female Swivel on branch	3
VST-44X	Swivel Tee 1/4 with depressor	1/4 SAE Flare x 1/4 Female Swivel on run x 1/4 SAE Flare on branch	3
VTR-24	Threaded Tee Fitting	1/8 MPT x 1/4 Male SAE Flare on run x 1/4 SAE Male Flare on branch	3
VTS-10	Solder Tee Fitting	5/8 ODS x 5/8 ODS on run with 1/4 SAE Male Flare on branch	3
VTS-46	Solder Tee Fitting	1/4 ODS x 1/4 ODS on run with 1/4 SAE Male Flare on branch	3
VTS-68	Solder Tee Fitting	3/8 ODS x 3/8 ODS on run with 1/4 SAE Male Flare on branch	3
VTS-810	Solder Tee Fitting	1/2 ODS x 1/2 ODS on run with 1/4 SAE Male Flare on branch	3
VUR-4	Full Union	1/4 OD SAE Flare x 1/4 SAE Flare with Cap	6
MSA-44	Adaptor – SAE Female to MNPT	1/4 SAE Female Swivel x 1/4 MNPT	2
VVC-1	Replacement Valve Core Tool		6
VCR-1	Core Removal Tool & Storer		1
VCR-T-1	Core Removal Tool		1

COPPER FITTINGS

INSTALL+

90° Elbow (CxC)

Code	Size (inches)	Pack Qty.
C235-0001-PH	1/4	100
C235-0002-PH	3/8	100
C235-0025-PH	1/2	100
C235-0050-PH	5/8	100
C235-0090-PH	3/4	50
C235-0100-PH	7/8	50
C235-0150-PH	1-1/8	25
C235-0215-PH	1-3/8	10
C235-0295-PH	1-5/8	10
C235-0390-PH	2-1/8	1
C235-0520-PH	2-5/8	1
C235-0650-PH	3-1/8	1
C235-0750-PH	3-5/8	1
C235-0850-PH	4-1/8	1

90° Street Elbow (FxC)

Code	Size (inches)	Pack Qty.
C254-0002-PH	3/8	100
C254-0025-PH	1/2	100
C254-0050-PH	5/8	100
C254-0090-PH	3/4	50
C254-0100-PH	7/8	25
C254-0150-PH	1-1/8	20
C254-0215-PH	1-3/8	10
C254-0295-PH	1-5/8	10
C254-0390-PH	2-1/8	1
C254-0520-PH	2-5/8	1
C254-0650-PH	3-1/8	1
C254-0750-PH	3-5/8	1
C254-0850-PH	4-1/8	1

90° Long Turn Elbow (CxC)

Code	Size (inches)	Pack Qty.
C242-0001-PH	1/4	100
C242-0002-PH	3/8	100
C242-0025-PH	1/2	100
C242-0050-PH	5/8	50
C242-0090-PH	3/4	50
C242-0100-PH	7/8	25
C242-0150-PH	1-1/8	10
C242-0215-PH	1-3/8	10
C242-0295-PH	1-5/8	5
C242-0390-PH	2-1/8	1
C242-0520-PH	2-5/8	1
C242-0650-PH	3-1/8	1
C242-0750-PH	3-5/8	1
C242-0850-PH	4-1/8	1

90° Long Turn Street Elbow (FxC)

Code	Size (inches)	Pack Qty.
C272-0002-PH	3/8	100
C272-0025-PH	1/2	100
C272-0050-PH	5/8	50
C272-0090-PH	3/4	50
C272-0100-PH	7/8	25
C272-0150-PH	1-1/8	10
C272-0215-PH	1-3/8	10
C272-0295-PH	1-5/8	5
C272-0390-PH	2-1/8	1
C272-0520-PH	2-5/8	1
C272-0650-PH	3-1/8	1
C272-0750-PH	3-5/8	1
C272-0850-PH	4-1/8	1

COPPER FITTINGS

INSTALL+

45° Elbow (CxC)

Code	Size (inches)	Pack Qty.
C290-0002-PH	3/8	100
C290-0025-PH	1/2	100
C290-0050-PH	5/8	50
C290-0090-PH	3/4	50
C290-0100-PH	7/8	50
C290-0150-PH	1-1/8	25
C290-0215-PH	1-3/8	10
C290-0295-PH	1-5/8	10
C290-0390-PH	2-1/8	1
C290-0520-PH	2-5/8	1
C290-0650-PH	3-1/8	1
C290-0750-PH	3-5/8	1
C290-0850-PH	4-1/8	1

45° Street Elbow (FxC)

Code	Size (inches)	Pack Qty.
C295-0002-PH	3/8	100
C295-0025-PH	1/2	100
C295-0050-PH	5/8	50
C295-0090-PH	3/4	50
C295-0100-PH	7/8	25
C295-0150-PH	1-1/8	20
C295-0215-PH	1-3/8	10
C295-0295-PH	1-5/8	5
C295-0390-PH	2-1/8	1
C295-0520-PH	2-5/8	1
C295-0650-PH	3-1/8	1
C295-0750-PH	3-5/8	1
C295-0850-PH	4-1/8	1

End Cap

Code	Size (inches)	Pack Qty.
C154-0002-PH	3/8	100
C154-0025-PH	1/2	100
C154-0050-PH	5/8	50
C154-0090-PH	3/4	50
C154-0100-PH	7/8	25
C154-0150-PH	1-1/8	25
C154-0215-PH	1-3/8	10
C154-0295-PH	1-5/8	10
C154-0390-PH	2-1/8	5
C154-0520-PH	2-5/8	1
C154-0650-PH	3-1/8	1
C154-0750-PH	3-5/8	1
C154-0850-PH	4-1/8	1

Straight Coupler (CxC)

Code	Size (inches)	Pack Qty.
C165-0001-PH	1/4 x 1/4	100
C165-0002-PH	3/8 x 3/8	100
C165-0025-PH	1/2 x 1/2	100
C165-0050-PH	5/8 x 5/8	100
C165-0090-PH	3/4 x 3/4	100
C165-0100-PH	7/8 x 7/8	50
C165-0150-PH	1-1/8 x 1-1/8	25
C165-0215-PH	1-3/8 x 1-3/8	25
C165-0295-PH	1-5/8 x 1-5/8	10
C165-0390-PH	2-1/8 x 2-1/8	5
C165-0520-PH	2-5/8 x 2-5/8	1
C165-0650-PH	3-1/8 x 3-1/8	1
C165-0750-PH	3-5/8 x 3-5/8	1
C165-0850-PH	4-1/8 x 4-1/8	1

COPPER FITTINGS

Reducer Coupler (CxC)
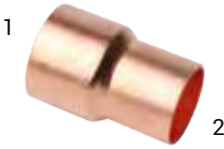
Reducer Coupler (FxC)

INSTALL+

Code	Size (inches) 1	2	Pack Qty.
C165-0007-PH	3/8 x 1/4		100
C165-0032-PH	1/2 x 3/8		100
C165-0033-PH	1/2 x 1/4		100
C165-0058-PH	5/8 x 1/2		100
C165-0059-PH	5/8 x 3/8		100
C165-0093-PH	3/4 x 5/8		50
C165-0094-PH	3/4 x 1/2		100
C165-0107-PH	7/8 x 5/8		50
C165-0108-PH	7/8 x 1/2		50
C165-0149-PH	7/8 x 3/4		50
C165-0159-PH	1-1/8 x 7/8		25
C165-0160-PH	1-1/8 x 5/8		25
C165-0161-PH	1-1/8 x 1/2		25
C165-1498-PH	1-1/8 x 3/4		25
C165-0222-PH	1-3/8 x 1-1/8		25
C165-0223-PH	1-3/8 x 7/8		25
C165-0224-PH	1-3/8 x 5/8		10
C165-0030-PH	1-5/8 x 1-3/8		10
C165-0304-PH	1-5/8 x 1-1/8		10
C165-0305-PH	1-5/8 x 7/8		10
C165-0398-PH	2-1/8 x 1-5/8		10
C165-0399-PH	2-1/8 x 1-3/8		10
C165-0400-PH	2-1/8 x 1-1/8		10
C165-0401-PH	2-1/8 x 7/8		10
C165-0531-PH	2-5/8 x 2-1/8		1
C165-0532-PH	2-5/8 x 1-5/8		1
C165-0533-PH	2-5/8 x 1-3/8		1
C165-0662-PH	3-1/8 x 2-5/8		1
C165-0663-PH	3-1/8 x 2-1/8		1
C165-0664-PH	3-1/8 x 1-5/8		1
C165-0790-PH	3-5/8 x 3-1/8		1
C165-0852-PH	4-1/8 x 2-5/8		1

Code	Size (inches) 1	2	Pack Qty.
C410-0007-PH	3/8 x 1/4		100
C410-0032-PH	1/2 x 3/8		100
C410-0033-PH	1/2 x 1/4		100
C410-0058-PH	5/8 x 1/2		100
C410-0059-PH	5/8 x 3/8		100
C410-0093-PH	3/4 x 5/8		50
C410-0094-PH	3/4 x 1/2		50
C410-0095-PH	3/4 x 3/8		50
C410-0107-PH	7/8 x 5/8		50
C410-0108-PH	7/8 x 1/2		50
C410-0109-PH	7/8 x 3/8		50
C410-0149-PH	7/8 x 3/4		50
C410-0159-PH	1-1/8 x 7/8		25
C410-1498-PH	1-1/8 x 3/4		25
C410-0160-PH	1-1/8 x 5/8		25
C410-0161-PH	1-1/8 x 1/2		25
C410-0222-PH	1-3/8 x 1-1/8		25
C410-0223-PH	1-3/8 x 7/8		25
C410-0224-PH	1-3/8 x 5/8		25
C410-0303-PH	1-5/8 x 1-3/8		10
C410-0304-PH	1-5/8 x 1-1/8		10
C410-0305-PH	1-5/8 x 7/8		10
C410-0306-PH	1-5/8 x 5/8		10
C410-0398-PH	2-1/8 x 1-5/8		10
C410-0399-PH	2-1/8 x 1-3/8		10
C410-0400-PH	2-1/8 x 1-1/8		10
C410-0401-PH	2-1/8 x 7/8		10
C410-0402-PH	2-1/8 x 5/8		10
C410-0531-PH	2-5/8 x 2-1/8		1
C410-0532-PH	2-5/8 x 1-5/8		1
C410-0533-PH	2-5/8 x 1-3/8		1
C410-0662-PH	3-1/8 x 2-5/8		1
C410-0663-PH	3-1/8 x 2-1/8		1
C410-0664-PH	3-1/8 x 1-5/8		1
C410-0754-PH	3-5/8 x 3-1/8		1
C410-0850-PH	4-1/8 x 2-1/8		1
C410-0852-PH	4-1/8 x 2-5/8		1
C410-0854-PH	4-1/8 x 3-1/8		1

COPPER FITTINGS

MALE ADAPTOR [1] (C X MALE NPT)

[2]

Code	Size (inches) 1 2	Pack Qty.
C101-0005-PH	3/8 x 1/2	50
C101-0007-PH	3/8 x 1/8	50
C101-0025-PH	1/2 x 3/8	50
C101-0050-PH	5/8 x 1/2	50
C101-0057-PH	5/8 x 3/4	50
C101-0058-PH	5/8 x 3/8	50
C101-0100-PH	7/8 x 3/4	10
C101-0150-PH	1-1/8 x 1	5
C101-0159-PH	1-1/8 x 3/4	5
C101-0215-PH	1-3/8 x 1-1/4	5
C101-0295-PH	1-5/8 x 1- 1/2	2
C101-0390-PH	2-1/ x 2	1

FEMALE ADAPTOR [1] (C X MALE NPT)

[2]

Code	Size (inches) 1 2	Pack Qty.
C105-0025-PH	3/8 x 1/2	50
C105-0050-PH	5/8 x 1/2	50
C105-0057-PH	5/8 x 3/4	25
C105-0058-PH	3/8 x 5/8	50
C105-0059-PH	1/4 x 5/8	50
C105-0100-PH	7/8 x 3/4	10
C105-0107-PH	7/8 x 1/2	10
C105-0150-PH	1-1/8 x 1	5
C105-0159-PH	1-1/8 x 3/4	5
C105-0215-PH	1-3/8 x 1-1/4	5
C105-0295-PH	1-5/8 x 1-1/2	2
C105-0390-PH	2-1/8 x 2	1

180° RETURN BEND

[1] [2]

Code	Size (inches) 1 2	Pack Qty.
C180-0002-PH	3/8 x1-1/2	100
C180-0025-PH	1/2 x 1-1/2	100
C180-0050-PH	5/8 x 1-7/8	50
C180-0090-PH	3/4 x 2-1/4	50
C180-0100-PH	7/8 x 2-1/2	50
C180-0150-PH	1-1/8 x 3	50
C180-0215-PH	1-3/8 x 3	25
C180-0295-PH	1-5/8 x 3-1/2	25
C180-0390-PH	2-1/8 x 5-1/2	25

U-TYPE STRAP

Code	Size (inches)	Pack Qty.
C947-0025-PH	1/2	100
C947-0050-PH	5/8	50
C947-0090-PH	3/4	50
C947-0100-PH	7/8	50
C947-0150-PH	1-1/8	10
C947-0215-PH	1-3/8	10
C947-0295-PH	1-5/8	10
C947-0390-PH	2-1/8	5

EQUAL TEE (CXCXC)

Code	Size (inches)	Pack Qty.
C460-0001-PH	1/4	100
C460-0002-PH	3/8	100
C460-0025-PH	1/2	100
C460-0050-PH	5/8	50
C460-0090-PH	3/4	50
C460-0100-PH	7/8	25
C460-0150-PH	1-1/8	10
C460-0215-PH	1-3/8	10
C460-0295-PH	1-5/8	5
C460-0390-PH	2-1/8	1
C460-0520-PH	2-5/8	1
C460-0650-PH	3-1/8	1
C460-0750-PH	3-5/8	1
C460-0850-PH	4-1/8	1

P TRAP

Code	Size (inches)	Pack Qty.
C533-0050-PH	5/8	5
C533-0090-PH	3/4	2
C533-0100-PH	7/8	2
C533-0150-PH	1-1/8	1
C533-0215-PH	1-3/8	1
C533-0295-PH	1-5/8	1
C533-0390-PH	2-1/8	1

INSTALL+

COPPER FITTINGS

Reducing Tee (CxCxC)
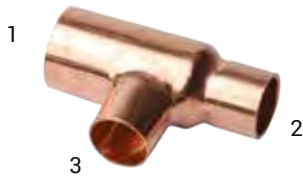
Code	Size (inches)			Pack
	1	2	3	Qty.
C460-0005-PH	3/8 x 3/8 x 1/4			100
C460-0006-PH	3/8 x 3/8 x 1/2			100
C460-0031-PH	1/2 x 1/2 x 5/8			100
C460-0032-PH	1/2 x 1/2 x 3/8			100
C460-0033-PH	1/2 x 1/2 x 1/4			100
C460-0040-PH	1/2 x 3/8 x 1/2			100
C460-0041-PH	1/2 x 3/8 x 3/8			100
C460-0056-PH	5/8 x 5/8 x 1-1/8			25
C460-0057-PH	5/8 x 5/8 x 7/8			25
C460-0058-PH	5/8 x 5/8 x 1/2			50
C460-0059-PH	5/8 x 5/8 x 3/8			50
C460-0066-PH	5/8 x 1/2 x 5/8			50
C460-0067-PH	5/8 x 1/2 x 1/2			50
C460-0068-PH	5/8 x 1/2 x 3/8			50
C460-0076-PH	5/8 x 3/8 x 1/2			50
C460-0087-PH	5/8 x 5/8 x 3/4			50
C460-0092-PH	3/4 x 3/4 x 7/8			50
C460-0093-PH	3/4 x 3/4 x 5/8			50
C460-0094-PH	3/4 x 3/4 x 1/2			50
C460-0095-PH	3/4 x 3/4 x 3/8			50
C460-0098-PH	3/4 x 5/8 x 5/8			50
C460-0106-PH	7/8 x 7/8 x 1-1/8			25
C460-0107-PH	7/8 x 7/8 x 5/8			25
C460-0108-PH	7/8 x 7/8 x 1/2			25
C460-0109-PH	7/8 x 7/8 x 3/8			25
C460-0111-PH	7/8 x 1/2 x 7/8			25
C460-0117-PH	7/8 x 5/8 x 7/8			25
C460-0118-PH	7/8 x 5/8 x 5/8			25
C460-0119-PH	7/8 x 5/8 x 1/2			25
C460-0127-PH	7/8 x 1/2 x 5/8			25
C460-0157-PH	1-1/8 x 1-1/8 x 1-5/8			10
C460-0158-PH	1-1/8 x 1-1/8 x 1-3/8			10
C460-0159-PH	1-1/8 x 1-1/8 x 7/8			10
C460-1498-PH	1-1/8 x 1-1/8 x 3/4			10
C460-0160-PH	1-1/8 x 1-1/8 x 5/8			10
C460-0161-PH	1-1/8 x 1-1/8 x 1/2			10
C460-0169-PH	1-1/8 x 7/8 x 1-1/8			10
C460-0170-PH	1-1/8 x 7/8 x 7/8			10
C460-0171-PH	1-1/8 x 7/8 x 5/8			10
C460-0180-PH	1-1/8 x 5/8 x 1-1/8			10
C460-0181-PH	1-1/8 x 5/8 x 7/8			10

Code	Size (inches)			Pack
	1	2	3	Qty.
C460-0220-PH	1-3/8 x 1-3/8 x 2-1/8			5
C460-0221-PH	1-3/8 x 1-3/8 x 1-5/8			10
C460-0222-PH	1-3/8 x 1-3/8 x 1-1/8			10
C460-0223-PH	1-3/8 x 1-3/8 x 7/8			10
C460-0224-PH	1-3/8 x 1-3/8 x 5/8			10
C460-0234-PH	1-3/8 x 1-1/8 x 1-3/8			10
C460-0235-PH	1-3/8 x 1-1/8 x 1-1/8			10
C460-0237-PH	1-3/8 x 1-1/8 x 5/8			10
C460-0245-PH	1-3/8 x 7/8 x 1-3/8			10
C460-0246-PH	1-3/8 x 7/8 x 1-1/8			10
C460-0247-PH	1-3/8 x 7/8 x 7/8			10
C460-0302-PH	1-5/8 x 1-5/8 x 2-1/8			5
C460-0303-PH	1-5/8 x 1-5/8 x 1-3/8			5
C460-0304-PH	1-5/8 x 1-5/8 x 1-1/8			5
C460-0305-PH	1-5/8 x 1-5/8 x 7/8			5
C460-0306-PH	1-5/8 x 1-5/8 x 5/8			5
C460-0315-PH	1-5/8 x 1-3/8 x 1-5/8			5
C460-0316-PH	1-5/8 x 1-3/8 x 1-3/8			5
C460-0328-PH	1-5/8 x 1-1/8 x 1-5/8			5
C460-0330-PH	1-5/8 x 1-1/8 x 1-1/8			5
C460-0331-PH	1-5/8 x 1-1/8 x 7/8			5
C460-0339-PH	1-5/8 x 7/8 x 1-5/8			5
C460-0397-PH	2-1/8 x 2-1/8 x 2-5/8			1
C460-0398-PH	2-1/8 x 2-1/8 x 1-5/8			1
C460-0399-PH	2-1/8 x 2-1/8 x 1-3/8			1
C460-0400-PH	2-1/8 x 2-1/8 x 1-1/8			1
C460-0401-PH	2-1/8 x 2-1/8 x 7/8			1
C460-0414-PH	2-1/8 x 1-5/8 x 1-5/8			1
C460-0416-PH	2-1/8 x 1-5/8 x 1-1/8			1
C460-0417-PH	2-1/8 x 1-5/8 x 7/8			1
C460-0429-PH	2-1/8 x 1-3/8 x 2-1/8			1
C460-0431-PH	2-1/8 x 1-3/8 x 1-3/8			1
C460-0432-PH	2-1/8 x 1-3/8 x 1-1/8			1
C460-0531-PH	2-5/8 x 2-5/8 x 2-1/8			1
C460-0532-PH	2-5/8 x 2-5/8 x 1-5/8			1
C460-0533-PH	2-5/8 x 2-5/8 x 1-3/8			1
C460-0534-PH	2-5/8 x 2-5/8 x 1-1/8			1
C460-0535-PH	2-5/8 x 2-5/8 x 7/8			1
C460-0549-PH	2-5/8 x 2-1/8 x 2-1/8			1
C460-0663-PH	3-1/8 x 3-1/8 x 2-1/8			1
C460-0664-PH	3-1/8 x 3-1/8 x 1-5/8			1

FLEXI
SUPPORT
SYSTEMS
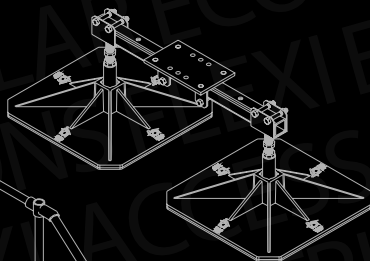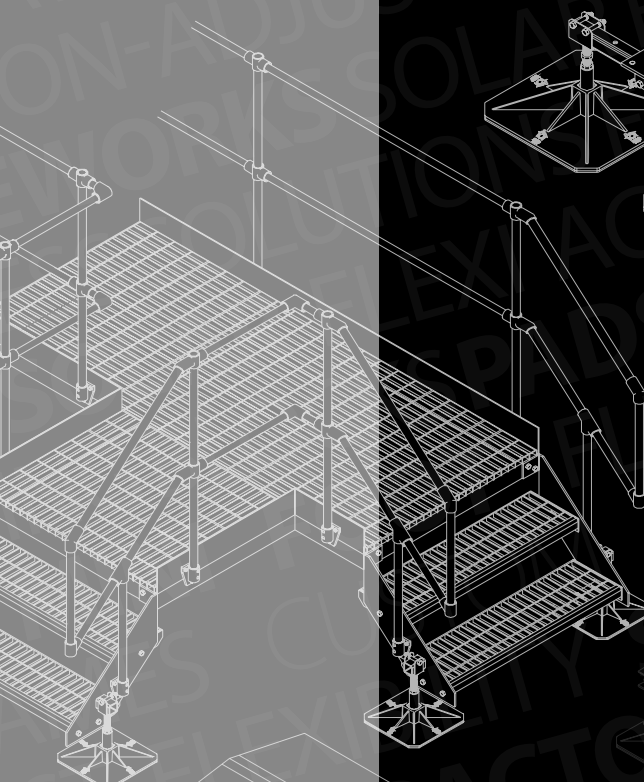
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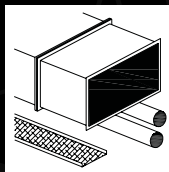
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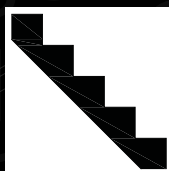
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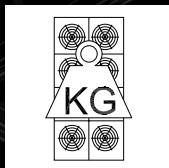
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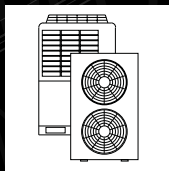
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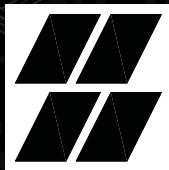
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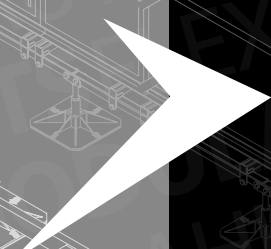
SERVICE AND MAINTENANCE

5 Litre Concentrated Cleaners - PRO RANGE

Already established as a leading brand of professional coil cleaning and maintenance products, the DiversiTech PRO-RANGE of concentrated coil cleaners are designed to provide outstanding cleaning results combined with minimal environmental impact and maximum economy. Pro Universal is registered as NSF Food Safe, making it ideal to use in and around food processing areas.

Code	Description	Size	Suitable for use on …
PRO-UNIV-GB	Concentrated – Indoor & Outdoor NSF Registered Food Safe Coil Cleaner	5 Litre	Condensers / Evaporators / Air Filters
PRO-FOAM+GB	Concentrated – Heavy Duty Alkaline Based Condensing Coil Cleaner	5 Litre	Condensers
PRO-CARE-GB	Concentrated – Evaporator Coil Cleaner with Disinfectant	5 Litre	Evaporators / Protecting & Disinfectants
PRO-CLEAN-GB	Concentrated – Alkaline Based Evaporator & Condensing Coil Cleaner	5 Litre	Condensers / Evaporators
PRO-COOL-GB	Concentrated – Non-Odour Liquid Ice Machine Cleaner	5 Litre	Ice Machines
PRO-SCALE-GB	Concentrated - Lime Scale Remover	5 Litre	Condensers / Exchangers
PRO-GREEN-GB	Concentrated - Environmentally Friendly Indoor and Outdoor Coil Cleaner	5 Litre	Condensers / Evaporators / Air Filers

1 Litre Pre-Mixed Cleaners G2G RANGE

The DiversiTech G2G-RANGE (Good to Go) are pre-mixed coil cleaners in a 1 litre convenient trigger bottle for quick and easy application.

G2G Universal is registered as NSF Food Safe, making it ideal to use in and around food processing areas.

Code	Description	Size	Suitable for use on …
G2G-UNIV-GB	Pro Universal Pre-Mixed Coil Cleaner	1 Litre	Condensers / Evaporators / Air Filters
G2G-FOAM+GB	Foaming Alkaline Based Pre-Mixed Coil Cleaner	1 Litre	Condensers
G2G-CARE-GB	Liquid Coil Cleaner with Disinfectant	1 Litre	Evaporators / Protecting & Disinfectant
G2G-GREEN+GB	Environmentally Friendly Pre-Mixed Coil Cleaner	1 Litre	Condensers / Evaporators / Air Filter
G2G-BUBBLE-GB	Bubble Up Leak Detector Pre-Mixed	1 Litre	Leak Detector

SERVICE AND MAINTENANCE

AEROSOLS

These professional aerosols are the perfect blend of high performance and excellent economy.

The range has seen improvements in formulation and scent.

Code	Description	Size	Suitable for use on …
AER-D-600	Coil Clean - Universal Coil Cleaner	600ml	Condensers / Evaporators
AER-F-600	Coil Foam - Heavy Duty Condenser Cleaner	600ml	AC & Refrigeration Condenser Coils
AER-I-600	Coil Care - Evaporator Cleaner & Disinfectant	600ml	Evaporators
AER-C-600	Case Clean – Case, Fascia & Glass Cleaner	600ml	Fan Coils, Cassette Units & Boiler Cases
AER-O-500	Grease Buster – Solvent Based Cleaner & Degreaser	500ml	AC & refrigeration condenser coils
AER-B-500	Leak Seek – Bubble Up Detector Spray	500ml	Leak Detector

Odour Elimination

The Smell Buster range is a unique odour elimination product that effectively neutralises bad smells in air conditioning systems.

Available in 1 Litre pre-mixed spray bottles, 60g twin pack, 12g ten pack and 225g tray.

Code	Description	Size	Suitable for use on …
SMELL-BUSTER-SMALL	Smell Buster – 12g tables (pack of 10)	12g (pack of 10)	RAC Systems
SMELL-BUSTER	Smell Buster – 60g tables (pack of 2)	60g (pack of 2)	RAC Systems
SMELL-BUSTER-8	Smell Buster – 225g (Tub)	225g (Tub)	RAC Systems
G2G-SMELL-BUSTER	Smell Buster Pre Mixed	1 Litre	RAC Systems

Compression Sprayers

Various hand held and compression sprayers are available for applying coil cleaners to the coils. Designed for a fast and easy application.

Code	Description	Capacity
1002	Hand Held Sprayer	1.4 Litres
2601	Compression Sprayer – 1 Gallon	3.8 Litres
2602	Compression Sprayer – 2 Gallon	7.4 Litres
2603	Compression Sprayer – 3 Gallon	11.4 Litres

SERVICE AND MAINTENANCE

DIVERSI-FLUSH

Dirty and contaminated system? We have a unique system and line cleaning solution, ideal for dealing with compressor burn outs, R22 retrofits and equipment upgrades and replacements.

Effectively removes all traces of residual oil and contaminants, this easy-to-use kit includes everything needed to quickly and effectively clean the entire system.

Code	Description	Size	Suitable for use on …
PF-KIT-EU	Diversi-Flush HVAC Flushing Kit – includes refill	480ml	Compressor Burnouts, R22 retrofits, upgrades
PF-16-EU	Diversi-Flush Solvent Refill	480ml	Compressor Burnouts, R22 retrofits, upgrades
PF-ADAPTOR	Line Set Adaptor		Compressor Burnouts, R22 retrofits, upgrades

DRAINGUN

Blocked drain line - no problem with our DrainGun™. This lightweight, portable tool is designed to unblock condensate drain lines and other pipework instantly.

Simply insert a CO_2 cartridge in to the DrainGun and with a press of the trigger, SWOOSH, 800 psi of food grade CO_2 blows the blockage out.

Code	Description	Pack QTY
GG-1	Drain Gun line cleaner	Single pack
GG-C-12	Drain Gun - Pack of 12 CO_2 cartridges	Pack of 12
GG-1A	Drain Gun - Adaptor kit - for larger tubes, oil lines and 90° angles	3 adaptors
GG-1H	Drain Gun - Hose assembly	Single pack

MAP+

Map+ is Propane, Propene and Dimethyl Ether Mixture - a high quality gas for soldering and brazing (for professional use only).

Use only with torches designed for MAP GAS. Never use with standard propane appliances such as lanterns, stoves, torches etc.

Part code	Description	Size
MAP+	MAP+ - Propane, Propene & Dimethyl Ether Mixture	453g

TOOLS

NITROGEN PURGE & BRAZING TOOL

The DP-1 Nitrogen Purge Tool is a quick and easy way to purge copper pipes with nitrogen. Connect and turn the dial, this switches to a very low flow of nitrogen to braze the copper. It has a durable aluminium design so you can just throw it into your tool bag when you are done. Can save nitrogen gas used when brazing and purging.

Code	Description	Qty	Suitable for use on …
DP-1	Nitrogen Purge Tool	1	Purging and controlling the flow of nitrogen through pipework during brazing

UNIVERSAL COPPER SPUN DRIERS

Manufactured with the latest generation molecular sieves and compatible with many refrigerants including R134a , our universal copper spun driers can be used in all hermetic and open compressor refrigeration systems. This includes commercial and domestic refrigerators, freezers and air conditioners up to 2.0 HP. The driers are hermetically sealed with extended ends.

Code	Outlet	Inlet	Diameter	Length	Desiccant R12	Tonnage	Qty
DX-3	1/4" (6mm)	1/4" (6mm)	3/4" (19mm)	7-11/16" (195mm)	10	1/2 (1.75kW)	1
DX-4	Multiple	1/4" (6mm)	1" (6mm)	9" (228mm)	18	1-1/2 (5kW)	1
DXA-5	1/4" (6mm)	1/4" (6mm)	1" (6mm)	9-1/4" (235mm)	20	1-1/2 (5kW)	1

TELESCOPIC INSPECTION MIRRORS

Fast, accurate visual inspection of hidden areas with an almost limitless number of positions. Double ball joint links swivel mirrors for viewing 360 degrees. Precision engineered links are made from tempered spring steel to withstand the streses of constant repositioning. Moves freely and holds in the desired position.

Code	Description	Qty
M-1	Mirror 1-1/4" circular – extends 6-1/4" to 18-1/4"	1
M-1R	Replacement Head for M-1	1
M-2	Mirror 2-1/4" circular – extends 10" to 14"	1
M-2R	Replacement Head for M-2	1
M-3	Mirror 2-1/8" x 3-1/2" rectangular – extends 11-1/4" to 15-1/4"	1
M-3R	Replacement Head for M-3	1
M-4	Mirror 7/8" Circular – extends 6-1/2"	1
M-5	Mirror 1" x 2" Oval – extends 8-1/2"	1

TOOLS

Fin-Tools & SuperComb

The Multihead fin-tool conveniently straightens and cleans condenser and evaporator fins. Each nylon head slides into the master handle and tightens in place. Heads are coloured and engraved with the size for fast identification. The metal fin straighteners have heavy duty spring wire bristles. The SuperComb has 6 coloured fins. The fin brush is a plastic handled fin brush to clean condenser and evaporator fins

Code	Description	Qty
T-1	Handle Only	1
T-100	Kit 1 – Handle with 6 Heads – 8,9,10,11,12,14	1
T-101	Kit 2 – Handle with 6 Heads – 13,15,16,17,18,20	1
T-8	Head 8 FPI – Orange	Pack of 3
T-9	Head 9 FPI – Yellow	Pack of 3
T-10	Head 10 FPI – Neutral	Pack of 3
T-11	Head 11 FPI – Blue	Pack of 3
T-12	Head 12 FPI – Green	Pack of 3
T-13	Head 13 FPI – Pink	Pack of 3
T-14	Head 14 FPI – Light Green	Pack of 3
T-15	Head 15 FPI – Aqua	Pack of 3
T-16	Head 16 FPI – Brown	Pack of 3
T-20	Head 20 FPI – Purple	Pack of 3
T-21	Head 21& 22 FPI - Rose	Pack of 3

Code	Description	Qty
T-200	Fin Tool	1
T-300	Fin Tool with Heavy Duty Bicycle Handle	1

Code	Description	Qty
T-400	Set of 6 T-408, T409, T-410, T411, T417, T418	1
T-408	8 and 10 FPI – Orange	1
T-409	9 and 15 FPI – Yellow	1
T-411	11 and 13 FPI – Blue	1
T-412	12 and 14 FPI – Green	1
T-417	16 and 17 FPI – Lime	1
T-418	18 and 20 PI – Red	1

Code	Description	Qty
B-26	Fin Brush	12

Compressor TOTE

Makes light work of a heavy job. Made from a strong powder coated steel. Recommended for use with all compressors up to 5 tons.

Code	Description	Qty
ACT-6	Compressor Tote	6

TORCHES

TOOLS+

Cliplight - Pivot™ Torches

The Pivot™ range has a 360 degree swivel hook and is magnetic at the base and back. Available in colours Yellow/Black and Camo. All models are supplied with three AAA batteries.

Code	Description	Colour	Lumens	UOM	Master Qty
111114	Pivot – 5 LED Work Light	Yellow / Black	240	Each	Pack of 9
111115	Pivot Mini – 18 LED Front Light / 3 LED Top	Yellow / Black	120	Each	Pack of 12
111117	Pivot Mini – 18 LED Front Light / 3 LED Top	Camo	120	Each	Pack of 12
24-458	Pivot 33 – 28 LED Front Light / 5 LED Top	Yellow / Black	160	Each	Pack of 9
24-460	Pivot 33 – 28 LED Front Light / 5 LED Top	Camo	160	Each	Pack of 9

Cliplight - Clipstrip™ Torches

The Clipstrip™ range is a powerful pocket light with clip, available in colours Yellow/Black and Camo.

A waterproof aqua clipstrip is available. All models are supplied with three AAA batteries.

Code	Description	Colour	Lumens	UOM	Master Qty
111112	Clipstrip – Pocket Light	Yellow / Black	140	Each	Pack of 12
111116	Clipstrip – Pocket Light	Camo	140	Each	Pack of 12
111113	Clipstrip – Aqua Pocket Light	Yellow / Black	180	Each	Individual

TORCHES AND LIGHTS

TOOLS+

Cliplight Seeker™ Torches

The Seeker™ range has a mini and max version. The UV light provides a circular spotlight with wide, focused or strobing capacities.

The mini can fit easily in your pocket and runs from AAA batteries. The max runs from a rechargeable lithium battery.

Code	Description	Colour	Lumens	UOM	Master Qty
84DCPLUS	Seeker – Mini UV LED Circular Spotlight	Red	UV Light	Each	Individual
87DCPLUS	Seeker – Max UV LED Rechargeable Circular Spotlight	Red	UV Light	Each	Individual

Cliplight Focus & Strobe

The Focus & Strobe light packs a big punch for a small light. The powerful single white LED delivers a constant or stobe beam , which can be focused for intensity.

Code	Description	Colour	Lumens	UOM	Master Qty
111201	Focus & Strobe	Blue	180	Each	Individual

Pure-Beam™ Ultraviolet Light

Pure-Beam™ ultraviolet light is designed for HVAC air disinfection and surface irradiation. The 17 watt UV-C lamp is a powerful tool to improve indoor air quality. It can be Installed in the HVAC system or ductwork on either the return or supply air side of the furnace or air handler.

Exposure to Pure-Beam™ significantly reduces air contamination caused by fungus, mold, and viruses and can cleanse surfaces overcome by mold and slime. Includes the UV lamp, a UL listed ceramic base, and mounting bracket.

Code	Description	Colour	Lumens	UOM	Master Qty
UV-1	Ultraviolet Light with 24 VAC elec. Ballast	Blue	180	Each	Individual

AUTOMOTIVE

SERVICE+
MAINTENANCE

The Purifier - Fresh Ozone Machine

The purifier fresh ozone machine incorporates the latest in ozone purification technology to eliminate VOC's, mold, mildew, bacteria and viruses. Ideal for use in homes, offices, hotels, businesses to combat lingering odours.

Code	Description	Dimensions (H x W x L) in mm	Colour	Voltage	Weight
170AIRP	The Purifier – Fresh Air Ozone Machine	139.7mm x 139.7mm x 343mm	Silver	240V	2.3kg

Code	Description
170AIRFAN	The Purifier – Replacement Fan
410212	The Purifier – Replacement Bulb
170AIRPCB	The Purifier – Replacement Circuit Board
UVEC-07G	The Purifier – 12V Charger

Super Seal Premium & Platinum™ - Pro A/C Stop Leak

Super Seal Premium and Platinum seals leaks in evaporators, condensers, accumulators as well as o-rings, gaskets, metal lines and rubber hoses. Actively prevents future leaks.

Easily installed in minutes and is compatible with all mobile A/C refrigerants including R12, R134A, and R1234YF. Hose included.

Code	Description	Capacity	UOM	Master Qty
946KIT	Super Seal Premium - with Pro A/C Stop Leak	1.5oz / 45ml	Each	12
976KIT	Super Seal Platinum - with Dry R & FLASH UV Dye	1.7oz / 51ml	Each	12

RETROCHILL™

Retrochill™ is a fast and effective solution to retrofit from R12 to 134A with conversion additives. 5 simple steps to convert. Once you have removed the R12 from your system, attach the hose, add retrochill, attach the refrigerant label and add the R134a retrofit oil. Hose included.

Code	Description	Capacity	UOM	Master Qty
70501KIT	Retrochill R12 to R134A Kit	3oz / 89ml	Each	12
70510KIT	Retrochill R12 to R134A Kit - 10 x cans	3oz / 89ml	Each	1

SUPERSEAL

Super Seal Advanced™ AC/R Stop Leak & Dry R

Super Seal™ is a 2-in-1 system additive that will find and seal leaks in refrigeration systems. It also contains an eliminator to dry any moisture in the system, preventing waxing and acid formation.

Super Seal is a light, low viscosity particle free liquid that is directly placed into the system as a mist - as it travels with the refrigerant and oil throughout the system, the sealant exits the leak point and reacts with moisture in the air - this forms a low tensile crystalline structure that creates a permanent seal. Super Seal Advanced™ comes with a reusable hose.

Code	Description	Capacity	UOM	Master Qty
947KIT	Super Seal Advanced – up to 1.5 tons (5kW)	1oz / 30ml	Each	12
944KIT	Super Seal Advanced – 1.5 to 5 tons (5-17kW)	2oz / 59ml	Each	12
948KIT	Super Seal Advanced – 5+ tons (17Kw)	3oz / 89ml	Each	12

Super Seal Total™ AC/R Stop Leak & Dry R & Flash

Super Seal Total™ 3-in-1 dries, seals and includes Flash UV dye for a complete repair solution. Super Seal Total is fast and easy to install and requires no pump down or recovery. It's compatible with all oils and refrigerants and ideal for all systems including microchannel, heat pump and geothermal. Super Seal Total™ stops leaks now and prevents future ones too. Super Seal Total™ comes with a reusable hose.

Code	Description	Capacity	UOM	Master Qty
971KIT	Super Seal Total – up to 1.5 tons (5kW)	1oz / 30ml	Each	12
972KIT	Super Seal Total – 1.5 to 5 tons (5-17kW)	2oz / 59ml	Each	12

Super Change™

Super Change™ is the fast and easy way to complete a R22 system retrofit. It creates a strong compatibility link between all oils to any HFC refrigerants, including POE-based R407C & R410A – eliminating compressor downtime and line set flush. It boosts efficiency plus extends compressor life by maximizing heat transfer and oil return with drop-in refrigerants. Ideal for dry charge units, retrofits and drop-in refrigerants. One can treats systems up to 6 tons. The 20122 reusable hose is required - sold separately

Code	Description	Capacity	UOM	Master Qty
981	Super Change – up to 6 tons	2oz / ml	Each	6

SUPERSEAL

Flash™

Flash™ UV dye is an advanced class of highly concentrated ultra violet dye that uses DRY R™ instead of POE oil as its carrier. This, combined with our patented misting action, enables the dye to travel at the speed of the refrigerant while keeping the dye stable. One can treats up to 64 oz (1.8L) of oil. Flash UV dye uses the systems refrigerant as the propellant, creating a clean, no-mess injection every time. The 20122 reusable hose is required - sold separately.

Code	Description	Capacity	UOM	Master Qty
980	Flash – up to 5 tons (17kW)	0.14oz / 4ml	Each	12

Flash™ UV Detection Kits

Two kits are available which include 3 cans of the Flash™ UV dye, reusable clear hose, heavy duty storage case and a choice of UV torch light.

98087KIT

Code	Description	UOM
98084KIT	Flash Kit - 3 cans of Flash - Hose - with SEEKER Mini	1
98087KIT	Flash Kit - 3 cans of Flash - Hose - with SEEKER Max	1

Accessories

20122

20128

Code	Description	UOM
20122	Reusable Hose	1
20128	R410a & R32 Transitional Fitting 5/16 x 1/4	1

SUPERSEAL

Sure Shot

Sure Shot™ Sealant Advanced with Eco Boost is a compressor-friendly method of permanently sealing leaks in AC/R systems. Eco Boost reduces noise and energy consumption, extends compressor life, plus eliminates 10 drops of water. It also enhances sealant performance, increases drier efficiency, while preventing waxing and acid formation. Sure Shot is added through an easy to inject syringe. One application works for systems up to 6 tons.

Code	Description	UOM	Master Qty
983KIT	Sure Shot Sealant Advanced HVAC/R Stop leak with hose	Each	12
984	Sure Shot Replacement Cartridge	Each	12
940	Sure Shot 1/4" SAE Reusable Hose	Each	1

Flex Inject®

Flex Inject Sealant Advanced is the fastest, most effective proven way to permanently seal and prevent minor air conditioning and refrigeration (AC/R) leaks. With no tools or gauges required, the Flex Inject sealant works by travelling through the system with the oil and refrigerant fixing leaks immediately. Flex Inject works with all compressors, heat pumps, condensers, and other system components and it will not plug up manifold gauges, metering devices, thermostatic expansion valves (TEVs), pistons or cause cap tube blockages. It meets the ASHRAE ARI 700 refrigerant standard and is compatible with any refrigerant including R-410A with no pump downs or recoveries required. Flex Inject is suitable for use in aluminium and copper coils and is microchannel friendly.

Code	Description	UOM	Master Qty
985	Flexi Inject Sealant Advanced for systems up to 6 tons	Each	6

LUBRICANTS AND DYES

Oil & Cleaner

PAO 68 OIL

PAO 68 OIL & UV DYE

HYBRID A/C COMPRESSOR OIL

DYE CLEANER

AC Dye

900008

900006B

900012B

Multi Purpose Dye

909008

909006B

909012B

Radiator Dye

990008

990006B

990012B

Pag & Dye

511046 / 511101 / 511150

Ester & Dye

511102

Code	Brand	Description	Size	Type
51105	Cliplight	PAO 68 Oil	500ml (17oz)	Lubricant
51110	Cliplight	PAO 68 Oil	1 Litre (34oz)	Lubricant
51111	Cliplight	PAO 68 Oil & Dye	1 Litre (34oz)	Lubricant & Dye
51112	Cliplight	Hybrid a/c Compressor Oil	236ml (8oz)	Compressor Oil
805CLN	Cliplight	Dye Cleaner	500ml (17oz)	Dye Remover
900008	Cliplight	A/C Dye	236ml (8oz	A/C Dye
900006B	Cliplight	A/C Dye	30ml (1oz)	A/C Dye
900012B	Cliplight	A/C Dye	7.5ml (0.25oz)	A/C Dye
909008	Cliplight	Multi-Purpose Dye	236ml (8oz)	Multi-Purpose Dye
909006B	Cliplight	Multi-Purpose Dye	30ml (1oz)	Multi-Purpose Dye
909012B	Cliplight	Multi-Purpose Dye	7.5ml (0.25oz)	Multi-Purpose Dye
990008	Cliplight	Radiator Dye	236ml (8oz)	Radiator Dye
990006B	Cliplight	Radiator Dye	30ml (1oz)	Radiator Dye
990012B	Cliplight	Radiator Dye	7.5ml (0.25oz)	Radiator Dye
511046	Cliplight	Pag & Dye (46 Viscosity)	236ml (8oz)	Pag & Dye
911101	Cliplight	Pag & Dye (100 Viscosity)	236ml (8oz)	Pag & Dye
511150	Cliplight	Pag & Dye (150 Viscosity)	236ml (8oz)	Pag & Dye
511102	Cliplight	Ester & Dye (100 Viscosity)	236ml (8oz)	Ester & Dye

ACCESSORIES

Pro Bubble Leak Detector Spray

Pro Bubble is an easy to use leak detector spray, ideal for locating gas and air leaks in pipes and equipment. It will not attack or react with metal surfaces and is highly efficient for the detection of ammonia, refrigerant gas and air leaks at below freezing temperatures.

Code	Description	UOM	Master Qty
PRO-BUBBLE-32	Pro-Bubble Leak Detector Spray – 32oz with spray top	Each	12

Cool-Weld™ Heat Barrier Spray

Cool-Weld ™ is a spray on gel heat shield for soldering, sweating and welding. Ideal for use on filter driers, pipes, valves, sheet metals, etc. Can be used on porous surfaces such as fabrics or drywall. As long as there is some Cool-Weld™ present the surface will resist charring.

Code	Description	UOM	Master Qty
COOLWELD-32	Cool-Weld Heat Barrier Spray – 32oz with spray top	Each	12

Pull A Spout Oiler

All purpose oiler with a 35cm telescoping spout. Zooms out for long shots, and in for short shots, even zooms around corners. Squeeze bottle action. Perfect lubricant for general industrial use. Contains four ounces of finest quality carbon free, rust and oxidation inhibited lubricating oil. Plastic container won't short out around electrical connections. No leakage

Code	Description	UOM	Master Qty
CO-1	Pull a spout oiler – 4oz (118ml) with telescoping spout	Each	12

3-IN-ONE MULTI-PURPOSE OIL

This 3-in-one oil lubricates, cleans and prevents rust.

Code	Description	Size
3IN1	3 in 1 multipurpose oil	100ml

Wypall Cloths

Heavy duty towels that absorb grease, oil, water and solvents from floors, hands, parts, tools and machinery.

Code	Description	UOM	Master Qty
5-05790	WypAll Plus Towels – White	Each	Box of 9

ACCESSORIES

Expanding Foam Sealant

A one component closed-cell expanding polyurethane foam sealant that is tack free in 20 minutes. Can be painted to prevent UV damage after 12 hours of drying time. Used to seal around doors, windows, pipes, ducts and vents - in fact, virtually anywhere.

Code	Description	UOM	Master Qty
01714	Foam Sealant – 355ml	Each	12
01724	Foam Sealant – 591ml	Each	12

Silicone Sealants

Available in clear or white, DiversiTech silicone sealants are 100% food grade and can be used in applications for continuous use up to 232°C. It is UV and water resitant and has long term flexibility.

Code	Description	UOM	Master Qty
7-4000	Clear Silicone Sealan t – 305ml	Each	12
7-4100	White Silicone Sealant – 305ml	Each	12

Diversi-Gum Sealing Compound

Diversi-Gum is a non-hardening, non-corrosive sealing compound that is immediately paintable and has a temperature usage range between -4°C and 49°C. It is ideal for sealing openings through foundations or refrigeration pipe entries.

Code	Description	UOM	Master Qty
6-202-1	Diversi-Gum Sealing compound 450g slug	Each	24
6-202-2	Diversi-Gum Sealing compound 900g slug	Each	20

Pro-Tite™ Resin Based Thread Sealant

A resin-based thread sealant that adheres to internal surfaces and fills voids while forming a fluid tight seal. Sealing from full vacuum up to 10,000 psi, Pro-Tite is specially formulated for use on metals and plastics subject to extreme vibration. Having a temperature range between -73°C to 204°C, Pro-Tite is impervious to most chemicals, including refrigerants, petroleum products, gases, steam etc.

Code	Description	UOM	Master Qty
CLL-1	Pro Tite Squeeze Tube - 39ml	Each	12

ACCESSORIES

SERVICE+
MAINTENANCE

ACID TEST KITS

Detects acid in refrigeration oil. Convenient one step test means no chemicals are needed. Easy to evaluate, the colour change indicates acidity, the intensity of the colour indicates the amount of acid that is present in the oil sample.

Acid Test Kit

Code	Description	UOM	Master Qty
ATK-4	Acid Test Kit – Pack of 4	Each	4
ATK-1	Acid Test Kit	Each	1
ATK-1P	Acid Test Kit – with POE Oil	Each	1

ACID ELIMINATOR

Keeps acid away; compatible with all refrigerants and oils. Chemically neutralises and prevents acids that are formed in air conditioning and refrigeration systems due to refrigerant and refrigeration oil break-down, moisture, and compressor burnout. Easy-to-use, no complicated charts. Works fast, circulates quickly, and leaves no solids or solid residual. Will not harm system components. Can prevent system breakdown.

Code	Description	UOM	Master Qty
ACID-ELIM	Acid Eliminator - 115ml	Each	12

ACID-ELIM

DRY R

Dry R eliminates moisture and increases system efficiency. It also dissolves blockages and frees up TEVs - preventing acid and waxing formation. Dry R is compatible with all oils and refrigerants and one can treats systems up to 5 tons.

Code	Description	Capacity	UOM	Master Qty
973KIT	Dry R Moisture Eliminator – up to 5 tons (17kW	1oz / 30ml	Each	12

FLOW-PLUS & PRO-TREAT CONDENSATE PAN TREATMENT

FLOW-PLUS-25   FLOW-PLUS-6   PRO-TREAT 151   PRO-TREAT 152   PRO-TREAT 161

A range of Drain Pan treatments to help prevent blockages resulting in condensate overflow. Simply place the tablets in the drain pan, where they will slowly dissolve in the condensate to give a prolonged cleaning action on the sludge. One or two tablets are recommended in each pan per month.

Code	Description	Equipment Tonnage	UOM	Master Qty
FLOW-PLUS-25	Flow Plus Condensate Drain Pan Tablets – 25 Tablets per Jar	1/2 to 3 tons	Each	12
FLOW-PLUS-6	Flow Plus Condensate Drain Pan Tablets – 6 x 1oz blocks	3 to 5 tons	Each	12
PRO-TREAT 152	Pro-Treat 152 King Size Premium Drain Pan Tablets – 12 Tables per Jar	1 tablet per 3 tons	Each	6
PRO-TREAT 161	Pro-Treat 161 Condensate Drain Pan Tablets – 100 Tablets per Jar	2 tablets per 3 tons	Each	12

LINE PIERCING VALVES AND TOOLS

Quick Tap

Features a valve core in the 1/4in. male port. Simply pierce the line and back seat the needle. Flow starts when depressor type charging hose is connected.

Code	Description	UOM	Master Qty
QT-1	Quick Tap – 1/4", 5/16", 3/8" OD (6.4mm, 8mm, 9mm)	Each	1
QT-2	Quick Tap – 1/2", 5/8" OD (13mm, 16mm)	Each	1

QT-1

QT-2

Quick Tap-2

Identical to the quick tap except that a nylon handle replaces the hex wrench, Phillips-head screws are used

Code	Description	UOM	Master Qty
QTH-1	Quick Tap 2 – 1/4", 5/16", 3/8" OD (6.4mm, 8mm, 9mm)	Each	1
QTH-2	Quick Tap 2 – 1/2", 5/8" OD (13mm, 16mm)	Each	1

QTH-1

MAC - The Ultimate in Line Piercing Valves

Install valve, connect charging hose , then service. That's all there is to it with a MAC line piercing valve. MAC valves feature a uniport single connection for piercing and servicing. Sealed with refrigerant resistant 'O' rings, the needle automatically back seats after servicing to leave the line free of restriction.

Code	Description	UOM	Master Qty
QTM-1	Line Piercing Valve – 1/4", 5/16", 3/8" OD (6.4mm, 8mm, 9mm)	Each	1
QTM-2	Line Piercing Valve – 1/2", 5/8" OD (13mm, 16mm)	Each	1

QTM-1

Insta-Tap Refrigerant Recovery Tool

The fastest, easiest way to evacuate refrigerant before disposal of a unit. Snaps onto refrigerant line for full and immediate flow. Punctures super large hole for maximum full flow discharge to recovery unit. One tool fits all sizes from 3/16in. to 7/8in. (4.76mm to 22.2mm) O.D. hard tubing. Replaceable needle.

QT-100

Code	Description	UOM	Master Qty
QT-100	Quick Tap 2 – 1/4", 5/16", 3/8" OD (6.4mm, 8mm, 9mm)	Each	1
QT-100N	Replacement Hardened Steel Needle and Gasket	Each	1
QT-100G	Replacement Gasket Only	Each	3

ACCESSORIES

INSTALL+

Line Tap and Swivel Valves

The quick, safe and easy option to charge, discharge and test a line. Simply clamp on the DLT valve, attach the DLV-1G control valve and pierce the line. The valve can swivel to any position and can also be removed and re-used. Available in three sizes from 4.8mm OD tube to 9.5mm

DLT-4G

Code	Description	UOM	Master Qty
DLT-3G	Line Tap Valve – 4.75mm OD Tube	1	1
DLT-4G	Line Tap Valve – 6.35mm OD Tube	1	1
DLT-5G	Line Tap Valve – 8mm OD Tube	1	1
DCV-1G	Valve for DLT Line Taps	1	1

Core Storer

All steel valve core remover and storage container. Completely knurled for easier grip, eliminating slippage when using with oily or greasy hands. Core Storer features a compartment for storing extra valve cores. Four replacement cores are included with each tool.

VCR-1

Code	Description	UOM	Master Qty
VCR-1	Core Removal and Storer	1	1

Core Removal Tool

Designed to remove and replace valve cores without losing the refrigerant charge. Connects to any 1/4in. male flare fitting. Saves time, saves refrigerant.

VCRT-1

Code	Description	UOM	Master Qty
VCRT-1	Core Removal Tool	1	1
VCRT-1R	Replacement Rod Assembly	1	1
VCRT-1S	Replacement Shut-Off Stem	1	1

RC-1 Insta-Charge

Faster, safer and a more economical method for charging LIQUID refrigerant through the low pressure side of an air conditioning or refrigeration system, without damaging the compressor. Insta-Charge's unique internal restrictor reduces liquid flow to a level below the capacity of the compressor. Converts liquid refrigerant to a saturated vapour for fast entry. Insta-Charge connects directly to the refrigerant can or cylinder valve. Adds liquid tracing dye faster. Eliminates heating of refrigerant cylinder. Made of light weight aluminium. Sold at a fraction of the cost of other fast charging devices.

RC-1

Code	Description	UOM	Master Qty
RC-1	Insta-Charge	1	1

TAPES, CLOTHS AND MATS

INSTALL⁺

Cork & Foam Insulation Tape

Cork insulation tape adheres firmly to all metals, the foam Insulation tape is a superior self-adhesive foam tape both of which can be used on hot or cold pipes to prevent heat loss and condensation dips. Easily cut and moulded, it fits well aound valves and fittings.

6-330

Aluminium Foil Tape

An easy to handle aluminium tape that prevents heating and cooling losses and blocks odours and moisture. Has a 3-5 year shelf life and a working temperature range of -37°C to 127°C (-35°F to 260°F)

6-9718

Code	Description	UOM	Master Qty
6-330	Cork Insulation Tape – Black 1/8" x 2" x 30ft Roll	1	1
6-9718	Foam Insulation Tape – Black 1/8" x 2" x 30ft Roll	1	1
640-AF-2	Aluminium Foil Tape - 2" x 50 yards Roll	1	1

640-AF-2

Abrasive Cloth

A high quality aluminium oxide 120 grit abrasive cloth, that can be used wet or dry to thoroughly clean steel and copper tubing.

Grip-Cut Cloth

A 180 grit open mesh sand screen cloth with aluminium oxide bonding, that is 100% waterproof. Can be used by hand or with portable tools and is most effective where clogging would be a problem such as soft materials.

SC-10

Code	Description	UOM	Master Qty
SC-10	Abrasive Cloth – 120 Grit – 1-1/2" x 10 yards	1	1
SCM-5	Grip-Cut Open Mesh Sand Screen Cloth – 1-1/2" x 5 yards	1	1

SCM-5

Braze Barrier Mats

This flame barrier drop cloth withstands temperatures to (1600°C) 3000°F No asbestos. Protects walls, floors, equipment, components and adjacent surfaces from torch flames when soldering, brazing or welding.

Code	Description	UOM	Master Qty
16500	Plain Braze Barrier Mat 18" x 18"	1	1
16510	Keyhole Braze Barrier Mat - 18" x 18"	1	1

16500

16510

ACCESSORIES

INSTALL+

Portable Hand Torch

The combustion tip concentrates heat - reducing brazing time by 40%.
This series has been redesigned with a patent pending ceramic igniting
1 piece stainless tip feature as well as a new diaphragm type regulator.
Extremely durable with a full 3 year warranty.

Code	Description	UOM	Master Qty
525-TORCH	Portable Hand Torch	Each	1

525-TORCH

Spark Key™

The Spark Key™ ignites all butane, propane and gas torches.
100,000 sure-fire sparks in a water resistant unit. No batteries are required.

Code	Description	UOM	Master Qty
SPARK KEY	Spark-Key Torch Ignitor	Each	1

SPARK KEY

Flexi Patch™

Flexi-Patch™ is an easy to use flexible repair patch ideal for repairing
almost any surface. It cures quickly using only UV light from sunlight
or a UV flashlight for a long lasting, permanent repair.

Flexi-Patch is a fibreglass-reinforced polyester ideal for use on PVC,
plastics, metal, wood, concrete and more. It's the easy way to
permanently patch almost any surface. It dries hard for permanent
repair. Can be drilled and painted once dry.

FP-36

Code	Description	UOM	Master Qty
FP-36	Flexi Patch Fibreglass repair patch – 75mm x 150mm – 10 per pack	Each	20

BOILER & HEATING

BOILER CONDENSATE PUMPS

INSTALL⁺
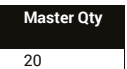
Tank Pumps

Pump House stock a range of boiler condensate removal pumps that are ideal when the boiler condensate can not be removed via gravity. The tank pumps use a small bore of flexible hose which can be routed above or below doors, windows or under kitchen cabinets.

When routing hose through any area which could be exposed to freezing temperatures, such as lofts, basements or garages, we strongly recommend increasing to at least 32mm plastic pipe and insulating.

PH-0.8LC

PH-0.8L-HL

PH-20-STA

Code	Brand	Description	Max Head	Max Flow	Drinks Cycle	Dimensions mm (HxWxD)	Discharge Size (inch)
PH-0.8LC	Pump House	0.8 Litre Tank Pump with Cover	3m	150LPH	200ml	128x210x86	9.5mm (3/8)
PH-0.8L-HL	Pump House	0.8 Litre Tank Pump	6m	270LPH	300ml	122x220x134	9.5mm (3/8)
PH-20-STA	Pump House	2 Litre Tank Pump	5.5M	402LPH	650ML	166x286x135	9.5mm (3/8)

HIGH TEMPERATURE AND PRESSURE RELIEF PUMPS

PRVSure PRV & Condensate Pump

This pump is manufactured from high temperature plastic, and comes complete with 10m of higher specification hose.

It meets EN Standards and can handle temperatures up to 110 degrees. Supplied with 10 metres of 'no sag' high grade braided hose. The unique design also cools the PRV discharge so it is safe for use with solvent weld pipework. For installers who are audited or working to EN Standards.

PH-3.8L-HW

Code	Description	Max Head	Max Flow	Temperature	Dimensions mm (HxWxD)	Discharge Size (inch)
PH-3.8L-HW	Pressure Relief & Boiler Condensate Pump *	8m	312LPH	110ºc	249x325x160	9.5mm (3/8)

* meeting BS6798:2014 PRV requirements

High Temperature Pressure Relief Pump - PH-5L-HW

Designed for unvented cylinder T&P discharge and steam humidifiers. Having one of the largest discharge rates of 32 litres per minute this pump can handle both high temperature up to 100 degrees and high flow rates.

Manufactured in the UK this heavy duty, high temperature tank pump incorporates thermal overload protection and a high level alarm switch.

PH-5L-HW

Code	Description	Max Head *	Max Flow	Temperature	Dimensions mm (HxWxD)	Discharge Size mm
PH-5L-HW	High Temperature & Pressure Relief Pump	8m / 20m	32 LPM (1920LPH)	100ºc	350x190x260	15mm

 * Max Heads - 8 metre for flow rates up to 25 Litres per minute / 20 metre for flow rates of 5 Litres per minute

CONDENSATE NEUTRALISERS

INSTALL+

COMMERCIAL CONDENSATE NEUTRALISER - 20 & 30 LITRES

Installing a neutraliser will reduce the impact of damage to existing boiler concrete drainage gullies and allow for the condensate to be disposed of safely.

The 20-litre stainless steel version can handle condensate from boilers up to 600kW by gravity.

The 30-litre version comes complete with a pump to provide a 5.9 metre lift and a flow rate of up to 900 litres per hour. Both come with lime chippings for instant installation and are suitable for 2.8pH boiler condensate.

BCONDNEUT-20L*

BCONDNEUT-30L*

Code	Brand	Description	Tank Capacity	Dimensions mm (HxWxD)	Discharge Size (inch)	Inlet	Weight
BCONDNEUT-20L	Pump House	20 Litre with lime chippings	20 Litre	200x400x300	9.5mm (3/8")	40mm	27kg
BCONDNEUT-30L	Pump House	30 Litre with pump & lime chippings	30 Litre	200x550x305	9.5mm (3/8")	40mm	30kg

* Modular & bespoke designs are available for boilers over 600kW.

Glaisdale Drive East ᛁ Nottingham NG8 4LY ᛁ United Kingdom

DRAINAGE PUMPS

Submersible Drainage Basement Pump

Little Giant have the perfect pump solution for the removal of clean, non-aggresive residual water.

This pump can be used to assist with the extraction of flood water in properties with basements and can be used with a sump to provide the removal of water below floor level.

6E-CIA-SFS

Code	Brand	Description	Max Head	Max Flow	Dimensions mm (HxWxD)	Discharge Size (inch)	Weight
6E-CIA-SFS	Little Giant	Drainage Basement Pump	4.6m	9600LPH	258x269x213	38mm (1/2)	12.7kg

Swimming Pool Cover Pump - APCP-1700

The Little Giant APCP pool cover pump helps safeguard and protect the pool cover from prolonged accumulation of rain or melting snow. This automatic version is certified for use on pool covers, all of which can attach to a standard garden hose for easy water removal.

It removes standing water from pool covers and is ideal for household water transfer applications.

APCP-1700

Code	Brand	Description	Max Head	Max Flow	Dimensions mm (HxWxD)	Discharge Size (inch)	Weight
APCP-1700	Little Giant	Automatic Pool Cover Pump	6.6m	6814LPH	210x305x305	1" FNPT	5.4kg

SOAKAWAY AND CONDENSATE BYPASS VALVE

INSTALL+

Soakaway Kit for Condensing Boilers

SOAK 1

'Soak up' boiler condensate with our soakaway. Where a suitable gravity drain is not available the soakaway can be used in conjunction with 10mm lime chippings.

Compatible with the following pipe sizes: 22mm (3/4") overflow, 32mm (1-1/4") and 40mm (1-1/2").

Top View
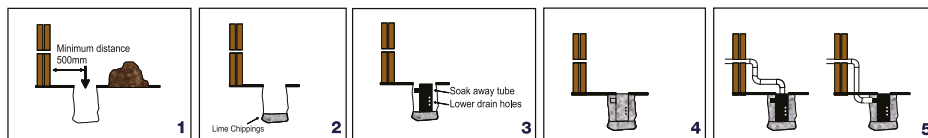
1. Dig hole (min depth) 400mm x 300mm in diameter, at least 500mm from the wall

Minimum distance 500mm

2. Fill the bottom of the hole with 100mm depth of lime chippings.

Lime Chippings

3. Insert the soakaway tube with the lower drain holes facing away from the property.

Soak away tube
Lower drain holes

4. Fill the remaining part of the hole and tube with lime chippings

5. Feed the pipework either into the top or through the side of the soakaway.

Code	Description	Height	Diameter	Inlet (inch)
SOAK1	Soakaway Kit for Condensing Boilers	300mm	110mm	22mm (3/4) 32mm (1-1/4) 40mm (1-1/2)

'Freezing Condensate Solution'
Boiler Buoy Condensate Bypass Valve

Low cost, easy to install solution to bypass freezing pipes. Cutting a condensate pipe due to freezing has been common place over winter periods. The BB-1 Boiler Buoy condensate bypass valve is a solution that has been designed to be fitted during install, emergency call outs or whilst performing annual service visits.

A red float which when visible, indicates that the condensate pipe has a blockage or may be frozen.

The built in tap allows the householder to drain the condensate away safely and ensures that the heating of the property can continue to work.

BB-1

Code	Description	Height	Diameter	Outlet	Hose Length
BB-1	Boiler Buoy – Condensate Bypass Valve	115mm	29mm	9.5mm	1.5m

BOILER CONDENSATE PUMP ACCESSORIES

Accessories

DiversiTech International stock a range of adaptors,, connectors, clamps, clips and hoses to connect the unit and pump.

Code	Description	Pump type application	Pack QTY
ADAP-1	Condensate drain adaptor – 22mm to 9.5mm (7/8 to 3/8")	Tank pump - 9.5mm (3/8") outlet	Single
PH-PUMP-NRV	Non-return check valve – 9.5mm (3/8")	Tank pump - 9.5mm (3/8") outlet	Single
ANTI-SYPH-KIT	Anti Syphon Kit – 9.5mm (3/8")	Tank pump - 9.5mm (3/8") outlet	Single
701-038	Hose 'T' connector – Nylon 9.5mm (3/8")	Tank pump - 9.5mm (3/8") outlet	2-pack
701-032	Hose connector – Nylon 9.5mm (3/8")	Tank pump - 9.5mm (3/8") outlet	2-pack
B-6H	Hose clamp – 6.3mm – 9.5mm (1/4 - 3/8")	All pumps	Single
927033	Hose clip - 9.5mm (3/8")	Tank pump - 9.5mm (3/8") outlet	Single
RVT-3/8	Condensate drain hose – 9.5mm (3/8")	Tabnk pump / hot water pumps	30m

Self-Sealing Pipe Adaptor

The self-sealing adaptor is used to form a connection between condensate hose and a soil & vent pipe. Drill a 13mm hole (for SVA-3) or a 10mm hole (for SVA-6), insert and twist in to seal the connection.

SV-ADAPTOR   SV-ADAPTOR-6

Code	Description	Pack Qty
SVA-3	Self-sealing pipe adaptor – 6mm & 9.5mm (1/4 & 3/8) hose to soil & vent pipe	3 Pack
SV-ADAPTOR	Self-sealing pipe adaptor – 6mm & 9.5mm (1/4 & 3/8) hose to soil & vent pipe	Single
SVA-6-3	Self-sealing pipe adaptor – 6mm (1/4) hose to soil & vent pipe	3 pack
SV-ADAPTOR-6	Self-sealing pipe adaptor – 6mm (1/4) hose to soil & vent pipe	Single

Audible Alarm

This audible alarm can be wired into all pumps with a high level switch.

Code	Description	Pack QTY
AUDIBLE-ALARM	Audible alarm for all pumps with a high-level switch	Single

PORTABLES

INSTALL+

A energy efficiency

NBS Plus

riba product selector

PORTABLES - COOL ONLY & HEAT / COOL PUMP

The portable air conditioners are suitable for offices, computer rooms and light commercial use. The cooling only model is ideal for cooling flats, conservatories or loft conversions during hot summer months. The heat and cool model can be used as an energy efficient form of heating along with cooling. The units come with a hose, tray, remote control and wall kit. Spare parts are available upon request - please enquire for more details.

PAC-C-12-R290

Code	Description	Cool capacity Btu/kW	Heat capacity Btu/kW	Watts	Amps	Air flow volume	EER	COP	Sound power level dBA
PAC-C-12S R290	Portable (cooling)	12,000 / 3.5	N/A	1350	5.9	420m^3/h	2.6	N/A	56
PAC-H-12S R290	Portable (heat pump)	12,000 / 3.5	N/A	1350	5.9	420m^3/h	2.6	N/A	56

Code	Description	Height	Width	Depth	Weight	Hose length	Refrigerant	Cooling area
PAC-C-12S R290	Portable (cooling)	730mm	485mm	360mm	28kg	1.5m	R290	25-30m^2
PAC-H-12S R290	Portable (heat pump)	730mm	485mm	360mm	28kg	1.5m	R290	25-30m^2

PRE-SLIT AND SEAL WEATHERPROOF INSULATION

Through Wall Insulation Kit

Running pipe work from an externally mounted air source heat pump or biomass boiler into a property requires the pipe work to be run through the exterior wall. The hot pipe work will be affected by cold bridging and heat loss if it is not insulated correctly. MIS 3005 requires external pipe work to be adequately insulated. This kit provides both thermal insulation within the wall and comes complete with an elbow section to cover the external copper pipe connection.

Step One	Step Two	Step Three	Step Four
Select a 65mm core drill	Drill 2x 65mm holes next to each other	Insert the PVC sleeve insulation, recess it to allow room for the elbow	Fit the elbow over the copper pipes

Code	Description
TW-KIT	Sleeved PVC coated insulation kit - 19mm wall thickness (2 x elbow and 2 x straight connectors)

SWITCHES AND ISOLATORS

FUSED SPUR SWITCHES

Code	Description
X-FSBBMC	Fused Spur Metal Clad – with Back Box
X-FSNBBMC	Fused Spur Metal Clad – with Back Box & Neon
X-FS	Fused Spur Plastic – without neon
X-FSN	Fused Spur Plastic – with neon
X-BBSM-25	Back Box Surface Mount – 25mm
X-BBSM-35	Back Box Surface Mount – 35mm
X-BBSM26-25	Back Box 2 Gang – 25mm
X-BBSM2G-35	Back Box 2 Gang – 35mm
X-BSPS-10A	Plug Socket – 10 Amp
X-2GSW2W-10A	Switch 2 Gang – 10 Amp
X-3GSW2W-10A	Switch 3 Gang – 10 Amp
X-1GDPSW-13A	Switch 1 Gang – 13 Amp
X-2GDPSW-13A	Switch 2 Gang – 13 Amp
X-DPSW-20A	Switch Double Pole – 20 Amp
X-PT	Plug Top – 13 Amp

INSTALL+

Fused Spur Metal

Fused Spur Plastic

SERVICE AND MAINTENANCE

DRAINGUN

Blocked drain line - no problem with our DrainGun™. This lightweight, portable tool is designed to unblock condensate drain lines and other pipework instantly.

Simply insert a CO_2 cartridge in to the DrainGun and with a press of the trigger, SWOOSH, 800 psi of food grade CO_2 blows the blockage out.

Code	Description	Pack QTY
GG-1	Drain Gun line cleaner	Single pack
GG-C-12	Drain Gun - Pack of 12 CO_2 cartridges	Pack of 12
GG-1A	Drain Gun - Adaptor kit - for larger tubes, oil lines and 90° angles	3 adaptors
GG-1H	Drain Gun - Hose assembly	Single pack

MAP+

Map+ is Propane, Propene and Dimethyl Ether Mixture - a high quality gas for soldering and brazing (for professional use only).

Use only with torches designed for MAP GAS. Never use with standard propane appliances such as lanterns, stoves, torches etc.

Part code	Description	Size	Barcode
MAP+	MAP+ - Propane, Propene & Dimethyl Ether Mixture	453g	5051391006053

TORCHES AND TAPES

INSTALL+

Cliplight - Pivot™ Torches

The Pivot™ range has a 360 degree swivel hook and is magnetic at the base and back. Available in colours Yellow/Black and Camo. All models are supplied with three AAA batteries.

Code	Description	Colour	Lumens	UOM	Master Qty
111114	Pivot – 5 LED Work Light	Yellow / Black	240	Each	Pack of 9
111115	Pivot Mini – 18 LED Front Light / 3 LED Top	Yellow / Black	120	Each	Pack of 12
111117	Pivot Mini – 18 LED Front Light / 3 LED Top	Camo	120	Each	Pack of 12
24-458	Pivot 33 – 28 LED Front Light / 5 LED Top	Yellow / Black	160	Each	Pack of 9
24-460	Pivot 33 – 28 LED Front Light / 5 LED Top	Camo	160	Each	Pack of 9

Abrasive Cloth

A high quality aluminium oxide 120 grit abrasive cloth, that can be used wet or dry to thoroughly clean steel and copper tubing.

Code	Description	UOM	Master Qty
SC-10	Abrasive Cloth – 120 Grit – 1-1/2" x 10 yards	1	1

SC-10

Grip-Cut Cloth

A 180 grit open mesh sand screen cloth with aluminium oxide bonding, that is 100% waterproof. Can be used by hand or with portable tools and is most effective where clogging would be a problem such as soft materials.

Code	Description	UOM	Master Qty
SCM-5	Grip-Cut Open Mesh Sand Screen Cloth – 1-1/2" x 5 yards	1	1

SCM-5

Braze Barrier Mats

This flame barrier drop cloth withstands temperatures to (1600°C) 3000°F No asbestos. Protects walls, floors, equipment, components and adjacent surfaces from torch flames when soldering, brazing or welding.

Code	Description	UOM	Master Qty
16500	Plain Braze Barrier Mat 18" x 18"	1	1
16510	Keyhole Braze Barrier Mat - 18" x 18"	1	1

16500

16510

ACCESSORIES

SERVICE+
MAINTENANCE

Cool-Weld™ Heat Barrier Spray

Cool-Weld ™ is a spray on gel heat shield for soldering, brazing and welding. Ideal for use on pipes, valves, sheet metals, etc. Can be used on porous surfaces such as fabrics or drywall. As long as there is some Cool-Weld™ present the surface will resist charring. Easy to wipe off with a damp cloth after use.

Code	Description	UOM	Master Qty
COOLWELD-32	Cool-Weld Heat Barrier Spray – 900ml with spray top	Each	12

Telescopic Inspection Mirrors

Fast, accurate visual inspection of hidden areas with an almost limitless number of positions. Double ball joint links swivel mirrors for viewing 360 degrees. Precision engineered links are made from tempered spring steel to withstand the streses of constant repositioning. Moves freely and holds in the desired position.

Code	Description	Qty
M-1	Mirror 1-1/4" circular – extends 32mm - 463mm (6-1/4" to 18-1/4")	1
M-2	Mirror 57mm (2-1/4") circular – extends 254mm - 355mm (10" to 14")	1
M-3	Mirror 54mm x 183mm (2-1/8" x 3-1/2") rectangular – extends 285mm - 387mm (11-1/4" to 15-1/4")	1
M-4	Mirror 22mm (7/8") Circular – extends 165mm (6 -1/2")	1
M-5	Mirror 25mm x 50mm (1" x 2") Oval – extends 191mm (8-1/2")	1

Wypall Cloths

Heavy Duty towels that absorb grease, oil, water and solvents from floors, hands, parts, tools and machinery.

Code	Description	UOM	Master Qty
5-05790	WypAll Plus Towels – White, pack of 100	Each	Pack of 9

ACCESSORIES

INSTALL+

Expanding Foam Sealant

A one component closed-cell expanding polyurethane foam sealant that is tack free in 20 minutes. Can be painted to prevent UV damage after 12 hours of drying time. Used to seal around doors, windows, pipes, ducts and vents - in fact, virtually anywhere.

Code	Description	UOM	Master Qty
01714	Foam Sealant – 355ml	Each	12
01724	Foam Sealant – 591ml	Each	12

Silicone Sealants

Available in clear or white, DiversiTech silicone sealants are 100% food grade and can be used in applications for continuous use up to 232°C. It is UV and water resitant and has long term flexibility.

Code	Description	UOM	Master Qty
7-4000	Clear Silicone Sealant – 305ml	Each	12
7-4100	White Silicone Sealant – 305ml	Each	12

Diversi-Gum Sealing Compound

Diversi-Gum is a non-hardening, non-corrosive sealing compound that is immediately paintable and has a temperature usage range between -4°C and 49°C. It is ideal for sealing openings through walls from pipe work.

Code	Description	UOM	Master Qty
6-202-1	Diversi-Gum Sealing compound 450g slug	Each	24
6-202-2	Diversi-Gum Sealing compound 900g slug	Each	20

Flexi Patch™

Flexi-Patch™ is an easy to use flexible repair patch ideal for repairing almost any surface. It cures quickly using only UV light from sunlight or a UV flashlight for a long lasting, permanent repair.

Flexi-Patch is a fiberglass-reinforced polyester ideal for use on PVC, plastics, metal, wood, concrete and more. It's the easy way to permanently patch almost any surface. It dries hard for permanent repair. Can be drilled and painted once dry. Capable of handling pressures upto 500psi and temperature range -26°C to 150°C

Code	Description	UOM	Master Qty
FP-36	Flexi Patch Fibreglass repair patch – 75mm x 150mm – 10 per pack	Each	20

PLASTIC PIPE FIXINGS

Plastic Pipe Fixings

PP-45EL-21.5-W   PP-90EL-21.5-W   PP-T-21.5-W   PP-CON-21.5-W   PP-CL-28-W / PP-CL-22-W / PP-CL-15-W

PP-PIPE-21.5-W   PP-CL-32-W / PP-CL-32-W / PP-CL-32-G   X-SOLCEM

Code White	Code Black	Description	Pipe Size (mm)	Quantity
PP-90EL-21.5-W	PP-90EL-21.5-B	Plastic Pipe – 90 Degree Elbow	21.5mm	Pack of 10
PP-45EL-21.5-W	PP-45EL-21.5-B	Plastic Pipe – 45 Degree Elbow	21.5mm	Pack of 10
PP-CON-21.5-W	PP-CON-21.5-B	Plastic Pipe – Straight Connector	21.5mm	Pack of 10
PP-T-21.5-W	PP-T-21.5-B	Plastic Pipe – T Connector	21.5mm	Pack of 10
PP-PIPE-21.5-W	PP-PIPE-21.5-B	Plastic Pipe	21.5mm	3 metre

Code White	Code Black	Code Grey	Description	Pipe Size (mm)	Quantity
PP-CL-15-W			Plastic Pipe Clip	15mm	Pack of 100
PP-CL-22-W			Plastic Pipe Clip	22mm	Pack of 100
PP-CL-28-W			Plastic Pipe Clip	28mm	Pack of 100
PP-CL-32-W	PP-CL-32-B	PP-CL-32-G	Plastic Pipe Clip	32mm	Pack of 10
PP-CL-40-W	PP-CL-40-B	PP-CL-40-G	Plastic Pipe Clip	40mm	Pack of 10

Code	Description	Size	Quantity
X-SOLCEM	Solvent Cement	250ml	1

Plastic Pipe Clamps / Non-Return Valves

Our plastic pipe clamps are designed to connect overflow or waste hose pipe to an existing 32mm (1-1/4") or 40mm (1-1/2") pipe. To avoid waste water flowing back up the pipe work our non-return valves can be used on overflow pipe or waste hose pipe.

PP-21.5-NRV

PP-CL-21.5-W-32-40   PP-UNI-CL-W-32-40

Code	Description	Quantity
PP-CL-21.5-W-32-40	Pipe Clamp Kit – 21.5mm overflow to 32mm (1/1/4") and 40mm (1-1/2")	1
PP-UNI-CL-W-32-40	Pipe Clamp – Hose Connector 32mm (1-1/4") and 40mm (1-1/2")	1
PP-21.5-NRV	Non-Return Valve – for 21.5mm overflow pipe	1
PP-UNI-NRV	Non-Return Valve – with Hose Fitting	1

PLASTIC PIPE FITTINGS

INSTALL+

Strap On Boss

Using a Strap On Boss allows you to add condensate drain pipe to a soil and vent pipe. For adding a waste connection into an existing PVCu and cast iron soil pipe. For use with 32mm or 40mm pipes. Must be solvent welded into position.

PP-SOBOSS-110-B-40

PP-SOBOSS-110-G-40

Code	Description	Quantity
PP-SOBOSS-110-G-32	Strap On Boss – 110mm Pipe with 32mm (1-1/4") Rubber – GREY	1
PP-SOBOSS-110-G-40	Strap On Boss – 110mm Pipe with 40mm (1-1/2") Rubber – GREY	1
PP-SOBOSS-110-B-32	Strap On Boss – 110mm Pipe with 32mm (1-1/4") Rubber – BLACK	1
PP-SOBOSS-110-B-40	Strap On Boss – 110mm Pipe with 40mm (1-1/2") Rubber – BLACK	1

PVC Pipes

PVC-U - Elbow 3/4"
90 Degree

PVC-U - 3/4" Socket

PVC-U - 3/4" T Piece

PVC-U - 3/4"
Maclow Clips

Code ¾ inch	Code 1 inch	Code 1-1/4 inch	Description	Quantity
X-PVCU-3/4E-45		X-PVCU-1-1/4E-45	PVCU – Elbow – 45 Degree	10
X-PVCU-3/4-45T		X-PVCU-1-1/4-45T	PVCU – 45 Degree T	10
X-PVCU-3/4E-90	X-PVCU-1E-90	X-PVCU-1-1/4E-90	PVCU – Elbow – 90 Degree	10
X-PVCU-3/4-MAC	X-PVCU-1-MAC	X-PVCU-1-1/4-MAC	PVCU – Maclow Clips	10
X-PVCU-3/4-EC			PVCU – End Cap	10
X-PVCU-3/4P-3M	X-PVCU-1P-3M	X-PVCU-1-1/4-3M	PVCU – Pipe – 3 Metre Length	10
X-PVCU-3/4-SOC	X-PVCU-1-SOC	X-PVCU-1-1/4-SOC	PVCU – Socket	10
X-PVCU-3/4-CAP		X-PVCU-1-1/4-CAP	PVCU – Threaded Cap	10
X-PVCU-3/4-PIN		X-PVCU-1-1/4-PIN	PVCU – Pin / Barrel	10
X-PVCU-3/4-R		X-PVCU-1-1/4-R	PVCU – Reducer	10
X-PVCU-3/4-RE		X-PVCU-1-1/4-RE	PVCU – Rodding Eye	10
X-PVCU-3/4-TP	X-PVCU-1TP	X-PVCU-1-1/4-TP	PVCU – T Piece	10

AIR SOURCE HEAT PUMPS

INSTALLATION PRODUCTS

INSTALLING

EASY·FIT
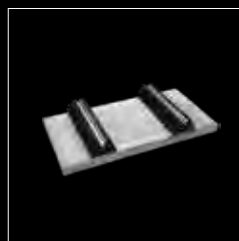
WALL MOUNTING BRACKETS

Our Type-2 brackets come with a cross-bar to allow for correct spacing of the arms. An integral   spirit level allows for easier installation. All brackets go through a 4-stage ant-corrosion process. *

Part code	Description	Safe working load*	Max load	Crossbar	Upright	Support arm	Weight
CBR2-S	Type 2 Bracket – Small	60kg	120kg	720mm	400mm	400mm	3.8kg
CBR2-M	Type 2 Bracket – Medium	90kg	180kg	900mm	500mm	500mm	4.6kg
CBR2-L	Type 2 Bracket – Large	140kg	280kg	1040mm	550mm	540mm	6.6kg
CBR2-XL	Type 2 Bracket – XL	250kg	500kg	1040mm	550mm	660mm	16.2kg
CBR2-XXL	Type 2 Bracket – Double XL	200kg	400kg	1040mm	550mm	780mm	17.3kg

Part code	Description	Safe working load*	Max load	Crossbar	Upright	Support arm	Weight
CBR2-XL-BL	Type 2 Bracket – XL	250kg	500kg	1040mm	550mm	660mm	16.2kg
CBR2-XL-3A-BL	Type 2 Bracket – XL (3 arms)	250kg	500kg	1040mm	550mm	660mm	16.2kg
CBR2-XXL-3A-BL	Type 2 Bracket – Double XL (3 arms)	200kg	400kg	1040mm	550mm	780mm	17.3kg
CBR2-XXL-3A-BL-D	Type 2 Bracket – Double XL (3 arms)	200kg	400kg	1120mm	550mm	780mm	17.3kg

Part code	Description	Safe working load*	Max load	Crossbar	Upright	Support arm	Weight
CBR2-XL-3A	Type 2 Bracket – XL (3 arms)	250kg	500kg	1040mm	550mm	660mm	16.2kg
CBR2-XXL-3A	Type 2 Bracket – Double XL (3 arms)	200kg	400kg	1040mm	550mm	780mm	17.3kg
CBR2-XXL-3A-BL-D	Type 2 Bracket – Double XL (3 arms)	200kg	400kg	1120mm	550mm	780mm	17.3kg

* All brackets are tested to 2 x safe working load.

NB: Sea salts are very corrosive and affect both ferrous and non-ferrous metals. Coastal installations are particularly at risk as they are frequently exposed to sea salt solutions followed by dry periods, where this wet/dry cycle produces a very corrosive environment. We strongly recommend that in such locations only our stainless steel brackets are installed.

INSTALLING

EASY-FIT CONDENSATE TRAYS

Concave profile to ensure efficient drainage. Supplied with fixing arms to mount to bracket. All trays go through a 4-stage ant-corrosion process. Also available in plastic.

Part code	Description	Width	Length	Weight
CCTM-800	Metal tray - small	400mm	800mm	5.23kg
CCTM-1080	Metal tray - 1080mm	500mm	1080mm	7.5kg
CCTM-1100	Metal tray - medium	400mm	1100mm	6.9kg
CCTM-1300	Metal tray - 1300mm	550mm	1300mm	8.8kg
CCTM-1400	Metal tray - large	400mm	1400mm	8.3kg

Part code	Description	Width	Length	Depth
CCTM01420-BL	Metal tray	1420mm	500mm	25mm

FLEXI LITE SLAB AND FOOT KIT

A low cost innovative solution for floor mounting heat pumps. The FLEXI Lite Slab and Foot kits avoid the high cost and time consuming need to construct a concrete base. Each kit comes complete with FLEXI rubber mounting feet, an Ultralite slab, and all the fixings. It can be delivered to site with minimum preparation and can be assembled in minutes. The Ultralite slab is a heavy duty slab with a polystyrene core and a fibre reinforced concrete coating. This makes the slab a fraction of the weight of a traditional concrete slab.

Part code	Description	Specifications
FF-UC3-S	Flexi Lite Kit - small	900 x 600 x 175
FF-UC3-M	Flexi Lite Kit - medium	1050 x 600 x 175
FF-UC3	Flexi-Lite Slab Kit	1200 x 600 x 175
FF-UC3-3	Flexi lite Slab Kit - 3 FEET	1200 x 600 x 175
FF-UC3-XL	Flexi-Lite Slab Kit - extra large	1650 x 865 x 175
FF-UC3-3XL	Flexi-Lite Slab Kit - 3 FEET - extra large	1650 x 865 x 175
FF-UC3-3XL-150	Flexi-Lite Slab Kit - 3 FEET (150mm feet) - extra large	1650 x 865 x 225

SMALL   MEDIUM   LARGE   EXTRA LARGE   3-FOOT

INSTALLING

FLEXI FOOT - SINGLE

Flexi Foot with 41mm galvanised Steel channel.

Part code	Size L x W x H mm	Weight	Safe working load
FF-250-S	250x185x100	2.8kg	175kg
FF-400-S	400x185x100	4.6kg	280kg
FF-600-F	600x185x100	7.6kg	420kg
FF-600-S-150	600x185x100	7.6kg	420kg
FF-1000-S	1000x185x100	12kg	700kg

FLEXI FOOT KITS

2 x Flexi feet with fixings pack

Part code	Description
FF-400-S-KIT	flexi-FOOT Kit - 400 (2 x 400mm feet + fixing kit)
FF-600-S-KIT	Flexi-FOOT Kit - 600 (2 x 600mm feet + fixing kit)
FF-600-S-KIT-3	Flexi-FOOT Kit - 600 (3 x 600mm feet + fixing kit)
FF-600-3-ASN-KIT	Flexi-FOOT Kit - 600 narrow (3 x FF-600-ASN + fittings kit)
FF-600-S-150-KIT	flexi-FOOT Kit - 600 x 150 high (2 x 600mm x 150mm feet + fixing kit)
FF-600-S-150-KIT-3	flexi-FOOT Kit - 600 x 150 high (3x 600mm x 150mm feet + fixing kit)
FF-1000-S-KIT	flexi-FOOT Kit - 1000 (2 x 1000mm feet + fixing kit)

ROTARY ISOLATORS

Our insulated 3 and 4 pole rotary enclosed isolators are CE marked and suitable for disconnecting the power supply to outdoor air source heat pump units.

They are waterproof to IP65 and easy to install and conform to IEC 60947-3. They have a lockable off position and interlocking cover which can be removed only in the off position. Earth and neutral terminals included and M20/25 knockouts up to 63A.

Code	No of poles	AMPS AC21	AC23 A 240VA	AC23 A 400VA	Cable capacity		Height	Width	Depth
					Solid	Stranded			
IS-3P-20A-S	3	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-3P-32A-S	3	32 amp	11kW	7.5kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-3P-20A	3	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-32A	3	30amp	11kW	7.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-40A	3	40amp	15kW	11kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-63A	3	63amp	22kW	18.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-20A-S	4	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-4P-32A-S	4	32 amp	11kW	7.5kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-4P-20A	4	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-32A	4	32amp	11kW	7.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-40A	4	40amp	15kW	11kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-63A	4	63amp	22kW	18.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm

INSTALLING

INSTALL+

FILL AND FLUSH FLOW SETTER

Ensures correct flow rate into the heat exchanger and allows for easy filling and draining of the system.

- 1" BSP Female Connectors
- 2 x 14mm Barbed Hose fittings.

Part code	Description
FBV-F&F-1-FF	Fill & FLush Flow setter 1" female/female

ACCESSORIES

FLEXI FOOT FIX CLAMP
Part No FF-FIXCLAMP

The fix clamp allows you to secure flexi feet to the floor using anchor bolts. Fixings not supplied

ANTI VIBRATION MOUNTING BOLTS
Part No AVMB-1

Pack of 4 anti-vibration bolts. Can be used with all DiversiTech International wall brackets

FLOOR BRACKET KIT
Part No CCTM-FLOOR-BRKT-KIT

Brackets to allow a condensate tray to be mounted on to flexifeet. The ASHP can then be mounted on the brackets.

Part code	Descriptiom
CCTM-FLOOR-BRKT-KIT	Stainless Floor Bracket Kit for drip trays - 4 x brackets and fixings
CCTM-FLOOR-BRKT-KIT3	Stainless Floor Bracket Kit for drip trays - 6 x brackets and fixings

INSTALLING

INSTALL+

ACCESSORIES

ASHP SOAK-AWAY
Part No ASHP-SOAK

This unique pre-bagged geo textile soakaway is used to safely dispose of the condensate from all domestic sized air source heat pumps where drain routing is not available. The volume of condensate created from an air source heat pump up to 16kW can be between 10-15 litres per hour up to 2000 litres per year. This method prevents the condensate from flowing onto paths and driveways, which can freeze and cause a slip hazard.

- Alternative method to condensate removal disposal
- Suitable for all models/brands of air source heat pumps
- Made from pre-bagged geo-textile material to prevent soil ingress
- 32mm inlet
- Capacity - 10-15 litres per hour
- Helps with MIS 3005 compliance and complies with BRE 365
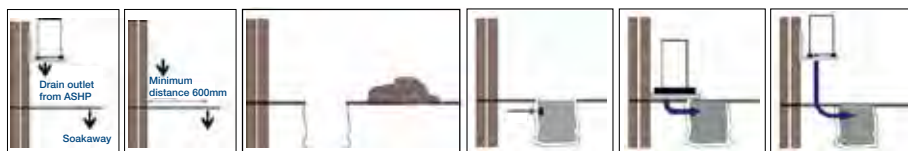
1. Identify route of condensate drain from ASHP and best location for position of soakaway.

2. Soakaway should be at least 600mm from the wall to avoid causing damp to the footings.

3. Dig a hole min 500mm deep x min 400mm diameter.

4. Insert the soakaway bag with inlet holes facing the property.

5a. Floor mounted ASHP: Fit the pipework from the ASHP into the soakaway bag.

5b. Wall mounted ASHP: Fit the pipework from the ASHP into the soakaway bag.

Part code	Description	Inlet	Diameter	Height
ASHP-SOAK	Air source heat pump soakaway - pree bagged geo textile with rubber chippings	32mm	400mm	400mm

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CONNECTING

FLEXIBLE CONNECTION HOSES

Our flexible hoses meet the requirements of MCS MIS 3005, and help to avoid transmission of vibration through the pipework.
The 28mm hose is sleeved within a stainless steel braid for added protection. All hoses come with 19mm wall insulation which is weatherproof and UV stable.

Sold in pairs

Part code	Description
FH-300-28-F-ELBOW	Flexible ASHP Hose Pair -300mm x 28mm - 1 " FEMALE c/w elbow
FH-300-28-1-1/4ELB	Flexible ASHP Hose Pair -300mm x 28mm - 1 1/4" FEMALE c/w elbow
FH-500-22-F	Flexible ASHP Hose Pair -500mm x 22mm - 1" FEMALE
FH-500-28-F	Flexible ASHP Hose Pair -500mm x 28mm - 1" FEMALE
FH-750-28-F	Flexible ASHP Hose Pair -750mm x 28mm - 1" FEMALE
FH-750-28-M	Flexible ASHP Hose Pair-750mm x 28mm - 1" MALE
FH-750-28-F-ELBOW	Flexible ASHP Hose Pair -750mm x 28mm - 1" FEMALE c/w elbow
FH-750-28-1-1/4F	Flexible ASHP Hose Pair -750mm x 28mm - 1 1/4" FEMALE
FH-750-28-1-1/4M	Flexible ASHP Hose Pair -750mm x 28mm - 1 1/4" MALE

PVC COATED EXTERNAL GRADE INSULATION

External condensate pipe work needs to be insulated in a tough PVC coated weather protected covering to avoid UV degradation and animal damage. Boiler installation standards BS 6798-2104 makes specific reference to this grade of insulation. ASHP and Biomass Boilers tend to be located externally and this hot water pipe work needs to be protected and insulated to avoid heat loss, MIS3005 and building regulations advise a certain thickness of insulation to meet heat loss requirements. Our PVC coated range helps installations comply in both boiler condensate and ASHP installations

Part code	Description	Length	Diameter	Thickness	ID
FH-I-1000-15	PVC Coated Weather & Waterproof Insulation	1000mm	41mm	13mm	15mm
FH-I-1000-22	PVC Coated Weather & Waterproof Insulation	1000mm	60mm	19mm	22mm
FH-I-1000-28	PVC Coated Weather & Waterproof Insulation	1000mm	66mm	19mm	28mm
FH-I-1000-35	PVC Coated Weather & Waterproof Insulation	1000mm	73mm	19mm	35mm
INS-TAPE-10-PK	PVC Coated Weather & Waterproof Tape	250mm	50mm	1mm	10 pack

INSULATING

PRE SLIT AND SEAL INSULATION

Our new insulation provides outstanding protection against the elements for external pipework on boiler condensate ASHP and Biomass boilers.

The new design offers a quick and secure 'tape free' installation with it's peel and seal join and self adhesive wrap-over flap. The tough PVC coating is both weatherproof and UV stable.

Part code	Size	Internal diameter
FH-I-1000-22-SLIT	1000mm L x19mm Thickness	22mm ID
FH-I-1000-28-SLIT	1000mm L x19mm Thickness	28mm ID
FH-I-1000-35-SLIT	1000mm L x19mm Thickness	35mm ID
INS-TAPE-10-PK	PVC Coated Weatherproof Insulation Tape	Length 250mm, Width 50mm x 1mm (pack 10)

THROUGH THE WALL INSULATION KIT

Pipe work running through the wall will be affected by cold bridging and heat loss if it's not insulated correctly. MIS 3005 requires external pipework to be properly insulated.

This provides both thermal insulation within the wall and comes complete with an elbow section to cover the external copper pipe connection.

Part code	Size
TW-KIT	Through the Wall Insulation Kit

PROTECTING

ASHP GUARDS

DiversiTech International manufacture a range of weather-resistant, steel mesh guards, offering a safe solution to avoid vandalism or accidental damage of your expensive ASHP. The range is ideal for all manufacturers of ASHP units. The unique sliding panel system allows for easy installation, which are secured into place when the front panel is fitted. Back panels are also available to make the guard free standing. For high wall mounted units, we can offer a base panel for full security.

Part code	Size	Dimensions (external)			Dimensions (internal)			Weight
		Height	Width	Depth	Height	Width	Depth	
CG-750-S	S	950mm	1150mm	750mm	920mm	1120mm	740mm	25kg
CG-750-M	M	1150mm	1150mm	750mm	1120mm	1120mm	740mm	32kg
CG-750-L	L	1450mm	1150mm	750mm	1420mm	1120mm	740mm	33kg
CG-750-INV	INV	1150mm	1450mm	750mm	1120mm	1420mm	740mm	33kg

Part code	Size	Height	Width	Depth	Height	Width	Depth	Weight
CG-900L-INV	L	1150mm	1450mm	900mm	1120mm	1420mm	890mm	34kg
CG-900L-SQ	L-SQ	1450mm	1450mm	900mm	1420mm	1370mm	890mm	51kg
CG-900-XXL	XXL	1800mm	1450mm	900mm	1770mm	1370mm	890mm	60kg

Part code	Size	Height	Width	Depth	Height	Width	Depth	Weight
CG-S	S	750mm	1050mm	460mm	720mm	1020mm	450mm	18kg
CG-M	M	1150mm	1150mm	650mm	1120mm	1120mm	640mm	27kg
CG-L	L	1450mm	1150mm	650mm	1420mm	1120mm	640mm	30kg
CG-XL	XL	1800mm	1150mm	650mm	1770mm	1120mm	640mm	40kg

WOODEN CONDENSER GUARDS

Part code	Description	Dimensions (external)			Dimensions (internal)		
		Height	Width	Depth	Height	Width	Depth
CG-750S-WOOD	Small Guard	905/960	1275	865	850/890	1050	753
CG-750M-WOOD	Medium Guard	1135/1135	1275	865	1075/1115	1055	753
CG-750M+WOOD	Medium+ Guard	1255/1310	1275	865	1200/1240	1055	753
CG-750L-WOOD	Large Guard	1530/1585	1275	865	1475/1515	1055	753
CG-750LINV-WOOD	Large Inv Guard	1130/1185	1630	865	1075/1115	1405	753
CG-750L+WOOD	Large+ Guard	1600/1655	1275	865	1545/1585	1055	753
CG-750L+INVWOOD	Large+ Inv Guard	1655/1690	1630	865	1580/1620	1405	753

PROTECTING

EXTERNAL TRUNKING

Pipework and insulation running from an air source heat pumps should be protected. Our range of trunking comes in a 140mm width with an ivory or black option and accommodates both the insulated flow and return pipework along with any associated cabling.

- Easy to Install
- 140mm wide
- Provides a professional and neat finish
- Made from high grade, UV stable, fade resistant PVC
- Available in Ivory and Black
- Protection from the elements, accidental damage and pest damage

Ivory part code	Description	Size (depth x width)
TR-D-140	140mm Trunking (2000mm Length)	90mm x 140mm
TR-WC-140	140mm Wall Cover	90mm x 140mm
TR-CP-140	140mm Straight Connector	90mm x 140mm
TR-IC-140	140mm 90 Degree Internal Bend	90mm x 140mm
TR-FB-140	90 Degree Flat Bend	90mm x 140mm
TR-EC-140	90 Degree External Bend	90mm x 140mm

Black part code	Description	Size (depth x width)
TR-D-140-B	140mm Trunking (2000mm Length)	90mm x 140mm
TR-WC-140-B	140mm Wall Cover	90mm x 140mm
TR-CP-140-B	140mm Straight Connector	90mm x 140mm
TR-IC/EC-140-B	140mm Straight Connector	90mm x 140mm
TR-IC-140-B	140mm 90 Degree Internal bend / External bend	90mm x 140mm
TR-FB-140-B	90 Degree Flat Bend	90mm x 140mm
TR-EC-140-B	90 Degree External Bend	90mm x 140mm

MAINTAINING

COIL CLEANING

Heat exchangers can get clogged with dirt and debris. It's essential to keep these clean to maintain optimum efficiency. Pro-green is an environmentally friendly cleaner for ASHP heat exchangers. Available ready-mixed or concentrated.

Part code	Description
G2G-Green+	G2G Green 1 Litre pre-mixed Coil Cleaner Spray
Pro-Green-GB	Pro-Green 5 Litre Concentrated Coil Cleaner

REFRIGERANT LEAKS

SUPER SEAL LEAK SEALANT

Super Seal™ is a system additive that will find and seal leaks in the refrigeration circuit of an ASHP. It also has an eliminator to dry any moisture in the system preventing acid/waxing, and dissolves blockages and frees TEV's. Compatible with all oils and refrigerants.

Part code	Description	Contents
947-KIT	Small Systems Up To 5kW	30ml
944-KIT	Medium Systems from 5-17 kW	59ml
948-KIT	Large Systems over 17kW	89ml

BUBBLE-UP LEAK SPRAY

Leak Seek is a leak detection spray designed to locate refrigerant leaks. Suitable for high and low pressure leaks, this formulation is alcohol and solvent free and has long lasting bubbles.

Part code	Description
AER-B-500	500ml Leak Detection Spray

ELECTRONIC LEAK DETECTOR - TIF XP-1A

The TIF XP-1A detects all HFC, HFO and HCFC refrigerants, and will find a leak as small as 3 grams per year. Requires 2 x 'C' Batteries.

Part code	Description
TIF-XP1A	TIF Electronic Leak Detector

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FUCHS

RENISO TRITON SE/SEZ
**Synthetic refrigeration oils based on
poly esters (POE) for HFC/FC refrigerants**

RENISO C 85 E
Synthetic refrigeration oil for CO_2 compressors

RENISO PAG 100
**Special polyalkylene glycols
(PAG) for mobile AC systems**

FUCHS RANGE
PAGE 130

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FLEXI SUPPORT

SUPPORT SYSTEMS FOR BUILDING SERVICES

INSTALL+

NBS Plus

riba product selector
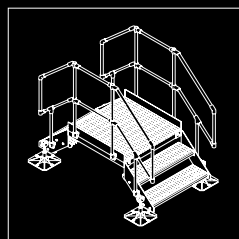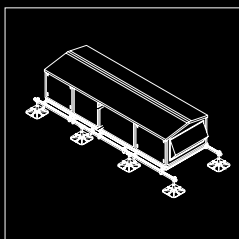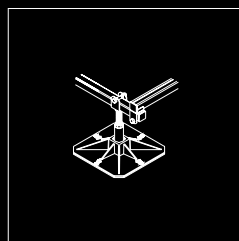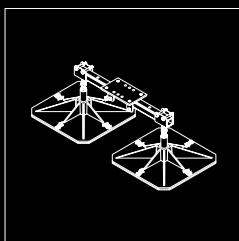
Light - Flexi Base & Extender Frames

BASE & EXTENDER frames are designed to provide stability and spread loads evenly across flat roof surfaces. Modular frames are ideal for a/c split systems and VRV/VRF systems.

The galvanised steel frame raises equipment up to 405mm (higher heights available) above the flat roof level, permitting quick and easy access for roof maintenance.

Step One: Assemble a BASE FRAME	Step Two: Need a bigger frame? Add an EXTENDER FRAME	Step Three: Connect the BASE & EXTENDER FRAMES together
ORDER - PH-BF-B	ORDER - PH-EF-B	ORDER - PH-BF-B & PH-EF-B

Item	Material
FEET	Square - 320mm square UV stabilised - 90% polypropylene and 10% grp
LEGS	48mm diameter, 3mm galvanised steel tube. M24 galvanised steel height adjuster. 3mm galvanised steel U-clevis
BOX BEAMS	40mm x 40mm x 2.5mm galvanised box section
CROSS BEAMS	41mm x 41mm x 2.5mm galvanised steel slotted strut
FIXING BOLTS	M12 spun galvanised

Code	Description	Length	Width	Min. Height	Max. Height	Safe Working Load**	Weight
PH-BF-B	Flexi Base Frame	1200mm	1200mm	300mm	405mm	500kg	30kg
PH-EF-B	Flexi Extender Frame	1200mm	1200mm	300mm	405mm	500kg	24kg

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SUPPORT SYSTEMS FOR BUILDING SERVICES

INSTALL+

EVERYDAY - FLEXI H-FRAME KITS

Our H-frame kits offer the installer full flexibility by providing a solution where they can supply their own strut to suit their installation requirements.

The H-frame kits are supplied with a pair of either our 305 or 320mm feet, most widely used in the majority of installations, or where heavier more demanding loads are present, then our 500mm foot version kit is available.

All kits are supplied with hot dip galvanised angle brackets together with all the necessary fixings to assist the installer in a low cost, versatile and fast assembly solution on site.

F-HF-500

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F-HF-320

Code	Description	Foot size	Safe working load*	Weight
F-HF-305	Flexi H-Frame Kit - 2 square block feet with fittings*	305mm x 305mm	105kg	2.8kg
F-HF-320	Flexi H-Frame Kit - 2 square block feet with fittings*	320mm x 320mm	250kg	4kg
F-HF-500	Flexi H-Frame Kit - 2 square block feet with fittings*	500mm x 500mm	600kg	13kg

Complete strut assembled frameworks, (H-frame kits where the strut is also supplied), are available upon request.

Item	Material
FEET	Square - 305mm, 320mm and 500mm square UV stabilised - 90% polypropylene and 10% grp
MAT	100% natural rubber, (mat is adhered to the feet)
FIXINGS	M10 ZP sets, spring washers and nuts
ANGLE BRACKETS	Mild steel, hot dipped galvanised BS EN ISO 1461:2009

* NB - the lengths of the strut are not supplied with this kit. ** As the strut is not supplied with the kit, the maximum load is a guide only.

*
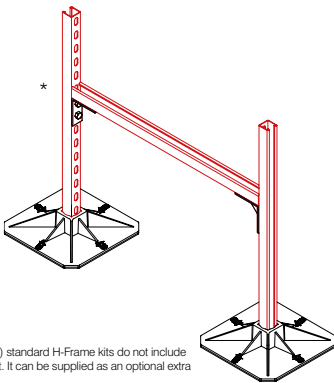
*   (red) standard H-Frame kits do not include strut. It can be supplied as an optional extra

** It is the installer's responsibility to ensure that equipment weights do not exceed the safe working loads quoted and that the roof structure onto which these products are being applied is sufficiently sound to withstand the weight and point loading. If these products are used in contact with a PVC/TPO roof membrane the installer should seek advice from the membrane manufacturer on the possible migration of plasticizers and the effect of this on the roof guarantee. These products should not be used for any purpose other than that for which they have been designed and the products must not be modified in any way. Pump House accepts no liability for damage caused by the incorrect application or installation of these products..

SUPPORT SYSTEMS FOR BUILDING SERVICES

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Everyday - Flexi Foot With Strut

Flexi Foot With Strut – These feet can support pipework, cable tray, and can also be used to mount air conditioning units, air source heat pumps and a variety of outdoor equipment.

Solar thermal and solar photovoltaic on flat roof installations can also be accommodated. Made from heavy duty recycled rubber. The 21x41mm galvanised steel strut is supplied bonded to the rubber. Drain slots are molded to the underside of the foot.

Item	Material
RUBBER	Compression moulded using milled, sieved and graded, recycled rubber bound with high quality adhesive
DENSITY	1.0kg / cm³
STRUT	41 x 21 x 1.5mm galvanised steel

Code	Description	Length mm	Width mm	Height mm	Safe Working Load*	Weight
FF-250-S	Flexi Foot With Strut – 250mm	250	185	100	175kg	2.8kg
FF-400-S	Flexi Foot With Strut – 400mm	400	185	100	280kg	4.6kg
FF-600-S	Flexi Foot With Strut – 600mm	600	185	100	420kg	7.6kg
FF-1000-S	Flexi Foot With Strut – 1000mm	1000	185	100	700kg	12.0kg

Code	Description	Length mm	Width mm	Height mm	Safe Working Load*	Weight
FF-250-S-P-L	Flexi Foot With Strut – 250mm – Low Profile	250	185	50	100kg	1.4kg
FF-400-S-P-L	Flexi Foot With Strut – 400mm – Low Profile	400	185	50	150kg	2.3kg

SUPPORT SYSTEMS FOR BUILDING SERVICES

Everyday - Flexi Foot Universal

The Flexi Foot Universal has three M10 inserts, offering support for small pipework and runs of cable tray, for air source heat pumps and a variety of outdoor equipment. The installer is free to bolt their own strut of various lengths to suit any installation from 500mm to 3000mm in length. It can also be used to support both solar thermal and solar photovoltaic on flat roof installations.

FF-250-UNI

Code	Description	Length mm	Width mm	Height mm	Safe Working Load*	Weight
FF-250-UNI	Flexi Foot Universal – 250mm	250	185	100	125kg	2.8kg

Item	Material
RUBBER	Compression moulded using milled, sieved and graded, recycled rubber bound with high quality adhesive
DENSITY	1.0kg / cm³
INSERTS	M10 (metric course thread) x 20mm zinc plated steel, through inserts
MAX. TORQUE (INSERTS)	15Nm
MAX. LOAD (INSERTS)	25kg

* The maximum load quoted is 25kg per insert and have been tested with a 4:1 safety ratio.

Flexi Fix Clamp

The Flexi Fix Clamp is used to add stability particularly with twin fan units. The Fix Clamp can be secured to the floor with anchor bolts.

Code	Description	Length mm	Width mm	Height mm
FF-FIXCLAMP	Flexi Foot Fix Clamp	240	60	103

FF-FIXCLAMP

Flexi Fix Packs

To complement our range of Flexi Feet we have created two versions of fix packs in either spring nut or T bolt. The packs contain bolts, nuts and washers for the installation of a pair of feet for a single condensing unit.

FF-FIXPACK   FF-FIX2

Code	Description
FF-FIX-PACK	Components with spring bolts to secure an outdoor AC unit – for 2 Flexi Feet
FF-FIX-2	Components with T bolts to secure an outdoor AC unit – for 2 Flexi Feet

Protection Fleece

Geotextile polyester fleece for PVC/TPO field membrane protection. Sold by linear metre. Please specify requirements.

Code	Description	Density
MPF-12	Protection Fleece – 2000mm x 1000mm	300gsm

MPF-12

SUPPORT SYSTEMS FOR BUILDING SERVICES

Flexi Foot - Variations

To complement our range of Flexi Feet we have an number of variations on the standard flexi foot with strut. The foot only options are available in 200, 350 and 500mm with angle pitch variants.

PH-FO-350-5.0-S

PH-FO-200

Code	Description	Length mm	Width mm	Height mm	Safe Working Load**	Weight
PH-FO-200	Flexi Foot – 200mm for vertical strut / M10 thread	200	200	85	100kg	2.3kg
PH-FO-350	Flexi Foot – 350mm for vertical strut	350	350	110	150kg	5.7kg
PH-FO-350-2	Flexi Foot – 350mm for vertical 82x41mm strut	350	350	110	150kg	5.7kg
PH-FO-350-2.5-S	Flexi Foot – 350mm for vertical 2.5 degree	350	350	125	150kg	5.9kg
PH-FO-350-5.0-S	Flexi Foot – 350mm for vertical 5.0 degree	350	350	140	150kg	6.1kg
PH-FO-500	Flexi Foot – 500mm for vertical strut	500	500	110	150kg	10.5kg
PH-FO-500-2	Flexi Foot – 500mm for vertical 82x41mm strut	500	500	110	150kg	10.5kg
PH-FO-500-2.5	Flexi Foot – 500mm for vertical 2.5 degree	500	500	130	150kg	10.7kg
PH-FO-500-5.0	Flexi Foot – 500mm for vertical 5.0 degree	500	500	150	150kg	10.9kg

Flexi Mini Foot

Lightweight support that may be used with horizontal or vertical strut to support low level cable tray and other services.

• Accepts 41mm x 41mm strut vertically into core
• Accepts 41mm x 41mm strut horizontally via fixing screw (supplied)
• Foam anti-vibration pad pre-fitted to the base
• Made from UV-stable pvc, strut not supplied

F-MF-160

Code	Description	Length mm	Width mm	Height mm	Safe working load**	Weight
F-MF-110	Flexi Foot mini - 110mm	110mm	110mm	60mm	-	-
F-MF-160	Flexi Foot mini - 160mm	160mm	160mm	60mm	50kg	230g

Walkway Mat

WW-MAT-500

Walkway mats may be combined to define a safe access path whilst protecting the roof surface.

Code	Description	Length mm	Width mm	Height mm	Safe Working Load**	Weight
WW-MAT-500	Walkway Mat – 500mm	500	500	45	150kg	14kg

** It is the installer's responsibility to ensure that equipment weights do not exceed the safe working loads quoted and that the roof structure onto which these products are being applied is sufficiently sound to withstand the weight and point loading. If these products are used in contact with a PVC/TPO roof membrane the installer should seek advice from the membrane manufacturer on the possible migration of plasticizers and the effect of this on the roof guarantee. These products should not be used for any purpose other than that for which they have been designed and the products must not be modified in any way. Pump House accepts no liability for damage caused by the incorrect application or installation of these products.

SUPPORT SYSTEMS FOR BUILDING SERVICES

Heavy - Flexi Twin Frames

Frames for large pipes, air handling units, chillers and packaged plant rooms. These robust & versatile free standing modular frames are supplied with fully adjustable leg assemblies in 500mm square polypropylene feet, incorporating anti-vibration rubber mats adhered to the underside. Robust 50 x 50mm box cross bars are 5mm thick to cater for mid-span point loads, resulting in even load dispersal through the framework down to each foot.

The optional mounting plate can be purchased in addition or as an alternative to the adjustment being in the leg assemblies. Therefore a non-adjustable twin is also available.

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F-TWIN-500-A

Application: Suitable for heavier building services such as large air handling units, chillers and packaged plantrooms. An ideal solution when the criteria to target existing roof beams is necessary. The twin frames can be targeted immediately above to assist direct load transfer to exisiting roof beams below: a common requisite in weaker roof designs.

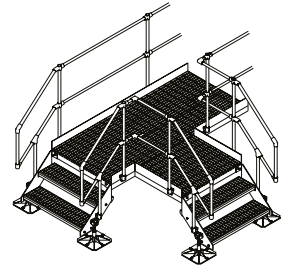| Item	Material
FEET	Square - 500mm square UV stabilised - 90% polypropylene and 10% grp
MAT	100% natural rubber, (mat is adhered to the feet)
LEGS	48mm dia. 3mm stud steel tube with M24 stud adjuster and 4mm thick U clevis to top
CROSS BARS	50x50x5mm SHS (Square hollow section) with optional mounting plate if required
FINISH	Hot dip galvanised steelwork BS EN 10219-1: 2006 Galvanising BS EN ISO 1461:2009 Salt Mist Testing: BS EN 60068-2-52-2018
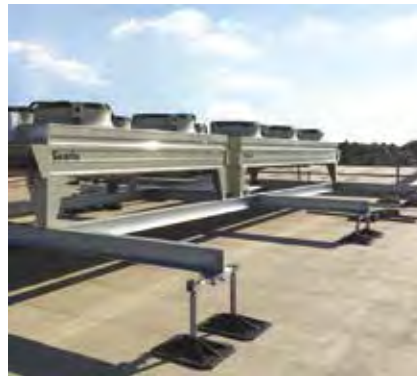
Double Mounting Plate
Part Code - F-TQ-ADJ-D

Single Mounting Plate
Part Code - F-TQ-ADJ-S

Code	Description	Length mm	Width mm	Height mm	Weight	Max Load
F-TWIN-320-A	Flexi TWIN (adjustable legs)	1020mm	320mm	250-380mm	14kg	350kg
F-TWIN-500-A	Flexi TWIN (adjustable legs)	1200mm	500mm	250-380mm	30kg	1000kg
F-TQ-ADJ-S	Single Mounting Plate	250mm	150mm	-	3kg	-
F-TQ-ADJ-D	Double Mounting Plate	250mm	150mm	170mm (adjustable)	8kg	-

SUPPORT SYSTEMS FOR BUILDING SERVICES

Heavy - Flexi Quad Frames

These robust & versatile free standing modular frames are supplied with fully adjustable leg assemblies and 500 x 500mm polypropylene feet, which incorporates anti-vibration rubber mats adhered to the underside.   Robust 50 x 50mm box end bars and cross bars both being 5mm thick in section, cater for picking up the point load mid span, resulting in even load dispersal through the framework down to the feet. The optional adjuster plate can also be purchased and these are supplied with fixings.

F-QUAD-500-A

Application: Suitable for heavier building services such as large air handling units, chillers and packaged plantrooms. Quads are particularly useful for managing heavy loads, and as a direct replacement for traditional concrete plinths, as they can be re-positioned to accommodate late design changes

Item	Material
FEET	Square - 500mm square UV stabilised - 90% polypropylene and 10% grp
MAT	100% natural rubber, (mat is adhered to the feet)
LEGS	48mm dia. 3mm stud steel tube with M24 stud adjuster and 4mm thick U clevis to top
END BARS	50x50x5mm SHS (Square hollow section)
CROSS BARS	50x50x5mm SHS (Square hollow section) with optional mounting plate if required
FINISH	Hot dip galvanised steelwork BS EN 10219-1:2006 Galvanising BS EN ISO 1461:2009. Salt Mist Testing: BS EN 60068-2-52:2018

Double Mounting Plate
Part Code - F-TQ-ADJ-D

Single Mounting Plate
Part Code - F-TQ-ADJ-S

Code	Description	Length mm	Width mm	Height mm	Weight	Max Load
F-QUAD-320-A	Flexi QUAD (adjustable legs)	1061mm	1020mm	305-435mm	60kg	2000kg
F-QUAD-500-A	Flexi QUAD (adjustable legs)	1241mm	1200mm	305-435mm	64kg	2000kg
F-TQ-ADJ-S	Single Mounting Plate	250mm	150mm	-	3kg	-
F-TQ-ADJ-D	Double Mounting Plate	250mm	150mm	170mm (adjustable)	8kg	-

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SUPPORT SYSTEMS FOR BUILDING SERVICES

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Heavy - Flexi Modular Frames

Modular robust frames for large air handling units.

These robust free standing modular frameworks are supplied with fully adjustable leg assemblies and 500 x 500mm polypropylene feet, incorporating anti-vibration rubber mats adhered to the underside. Robust 50 x 50mm square hollow section end bars are 2.5mm thick and are supplied with either 50 x 50mm, or 100 x 50mm cross bars. With a variety of sizes available for both our end bars and cross bars, a suitable framework can be designed to suit many applications where a strong support is key.
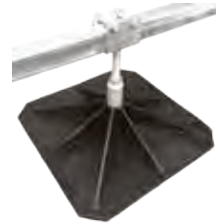
Application: Suitable for heavier building services such as large air handling units, chillers and air cooled condensers. Our unique 'drop on ' cross bars offer a faster alternative when erecting the framework compared with some slide on systems.

Item	Material
FEET	Square - 500mm square UV stabilised - 90% polypropylene and 10% grp
MAT	100% natural rubber, (mat is adhered to the feet)
LEGS	48mm dia. 3mm stud steel tube with M24 stud adjuster and 4mm thick U clevis to top
END BARS	50x50x2.5mm SHS (square hollow section)
CROSS BARS	50x50x3mm SHS & 100x50x3mm (square/ rectangular hollow section)
FINISH	Hot dip galvanised steelwork BS EN 10219-1:2006 Galvanising BS EN ISO 1461:2009. Salt Mist Testing: BS EN 60068-2-52:2018

Code	SHS Section	1000mm	1500mm	2000mm	2500mm	3000mm	3500mm
END BAR	50x50x2.5	PHF-005A	PHF-005B	PHF-005C	-	PHF-005D	-
CROSS BAR	50X50X3.0	-	PHF-016	-	-	-	-
CROSS BAR	100X50X3.2	-	-	PHF016A	PHF-016B	PHF-016C	PHF-016D

SUPPORT SYSTEMS FOR BUILDING SERVICES

Heavy - Flexi Custom Frames

Custom robust frameworks for the support of complex and heavy building services.

These custom solutions are frequently manufactured from 100 x 50mm parallel flange channel and/or 100x 100mm HEB (European Beam) and supported off fully adjustable leg assemblies utilising our larger 500 x 500mm polypropylene feet, incorporating anti-vibration rubber mats adhered to the underside. However larger steel sections are available dependant on project requirement and/or mass or size of the services being supported. All frameworks are hot dip galvanised. We will provide an AutoCAD drawing proposal together with load calculations prior to manufacture.
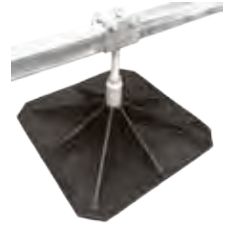
Application: Suitable for heavier chillers, packaged plantrooms, or complex shaped building services, typically air handling units. Steelwork comes with all necessary fixings and the correct amount of leg assemblies/feet. These are manufactured in the UK offering a very fast lead time.

Item	Material
FEET	Square - 500mm square UV stabilised - 90% polypropylene and 10% grp
MAT	100% natural rubber, (mat is adhered to the feet)
LEGS	Custom manufactured to suit most heights and welded frames. Supplied with M24 adjuster stud for levelling
FRAME	Dependant on load/span
FINISH	Hot dip galvanised steelwork BS EN 10219-1:2006 Galvanising BS EN ISO 1461:2009. Salt Mist Testing: BS EN 60068-2-52:2018

	AHU Requirements	**Chiller Requirements**	**Packaged Plantroom Requirements**
1	Sectional quantity	AVM quantity & point loads	Sectional quantity
2	Sectional dimensions	AVM dimensional locations	Sectional dimensions
3	Sectional weight	Total weight (operating mass)	Total weight (operating mass)
4	Overall dimensions & weight	Overall dimensions	Overall dimensions

Information Required

SUPPORT SYSTEMS FOR BUILDING SERVICES

INSTALL⁺

Access - Flexi Step-Overs & Hop-Overs

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Safe access solutions designed and manufactured to current British Standards.

With the introduction of The Work at Height Regulations back in 2005, the regulations apply to all work at height where there is a risk of a fall liable to cause personal injury. This regulation places duty on employees, the self employed and any person that controls the work of others, e.g. facility managers, building owners/end users etc. Flexi access solutions are designed to current British Standards; we offer full working drawings, site surveys and all our access range is manufactured in the UK. GRP options are also available upon request. So whether it's a cat ladder, companion way ladder, stairs, ramps, walkways or a combination of all these, flexi access will provde you and your workforce with a safe access solution. We can also offer a custom design service to suit your needs.

Application: Step-Overs to bridge ducts, pipes and electrical containment; custom solutions to access maintenance doors to AHU's chillers or other rooftop services, ramped access solutions where wheel barrow / sack barrows are used and straight foward elevated access solutions. Cat ladders and companion way ladder also available.

Item	Material
FEET	Square - 320mm square UV stabilised - 100% polypropylene
MAT	320mm feet only - 100% natural rubber, (mat is adhered to the feet)
LEGS	Step-Overs; 48mm dia. 3mm stud steel tube with M24 stud adjuster and 3mm thick U clevis to top
LEGS	Hop-Overs; 40x40x2mm SHS (Square hollow section)
HAND RAILS	33.7mm diameter mild steel
TREADS / FLOORING	25x3mm open grid flooring. (41/100 bearing bars) and designed to 7.5Kn/M² Loading BS4592 part 1
FINISH	Hot dip galvanised steelwork BS EN 10219-1:2006 Galvanising BS EN ISO 1461:2009. Salt Mist Testing: BS EN 60068-2-52:2018

Code	Description	Thread Qty	Landing Size mm	Clearance Height mm	Foot Size
F-SO-2	Flexi Step Over 2 up / 2 down	2 up / 2 down	1000mm x 1000mm	560mm	320mm x 320mm
F-SO-3	Flexi Step Over 3 up / 3 down	3 up / 3 down	1000mm x 1000mm	780mm	320mm x 320mm
F-SO-4	Flexi Step Over 4 up / 4 down	4 up / 4 down	1000mm x 1000mm	1000mm	320mm x 320mm
F-HO-600	Flexi Hop Over – 600mm	-	1000mm x 600mm	180mm	320mm x 320mm
F-HO-1000	Flexi Hop Over – 1000mm	-	1000mm x 1000mm	180mm	320mm x 320mm
F-HO-HR	Flexi Hand Rail for Hop Over	-	-	-	-

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SUPPORT SYSTEMS FOR BUILDING SERVICES

Access - Flexi Custom Platforms & Walkways

A tailored solution to fit around existing rooftop building services.

Flexi custom platforms and walkways are designed to provide solutions for maintenance and fire exit access. We can visit sites and carry out a thorough survey from which we generate AutoCAD drawings. These will be forwarded for approval to the project team prior to manufacture. They are manufactured from mild steel with a hot dip galvanised finish. Alternatively we can offer aluminium or GRP solutions upon request. Designed to comply with British Standards, these versatile and easy to assemble solutions are supplied with M24 adjustable legs, (to cater for the roof fall), and supported by our 320mm square feet

Application: Generally positioned on flat roofs providing access to rooftop building services and fire exit access solutions.

Item	Material
FEET	Square - 320mm square UV stabilised - 100% polypropylene
MAT	320mm feet only - 100% natural rubber, (mat is adhered to the feet)
LEGS	Step-Overs; 48mm dia. 3mm stud steel tube with M24 stud adjuster and 3mm thick U clevis to top
LEGS	Hop-Overs; 40x40x2mm SHS (Square hollow section)
HAND RAILS	33.7mm diameter. Kee Klamp (or similar) c/w interchangeable fittings
TREADS / FLOORING	25x3mm open grid flooring. (41/100 bearing bars) and designed to 7.5Kn/M² Loading BS4592 part 1
FINISH	Hot dip galvanised steelwork BS EN 10219-1:2006 Galvanising BS EN ISO 1461:2009. Salt Mist Testing: BS EN 60068-2-52:2018

Pump House supply access solutions that utilise stairs, companion way ladders or cat ladders, or a combination of all of these. Ramped access solutions are also available upon request. Manufactured to current British Standards, Pump House supply the solutions flat packed with all necessary fixings for quick assembly on site by others. We offer an efficient manufacturing and galvanising process and can supply goods to site usually within 10-15 working days.

FIXINGS

SLOTTED CHANNEL AND ACCESSORIES
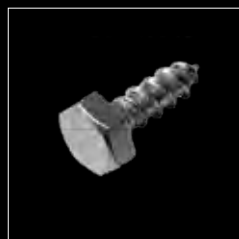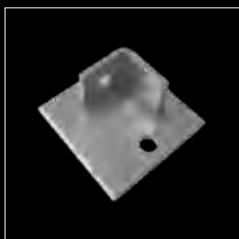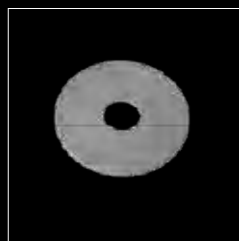
Slotted Channel

Code 3 Metres	Code 6 metres	Description
X-CH4121-1.5-3M	X-CH4121-1.5-6M	Slotted Channel – 41mm x 21mm x 1.5mm
X-CH4121-2.5-3M	X-CH4121-2.5-6M	Slotted Channel – 41mm x 21mm x 2.5mm
X-CH4141-1.5-3M	X-CH4141-1.5-6M	Slotted Channel – 41mm x 41mm x 1.5mm
X-CH4141-2.5-3M	X-CH4141-2.5-6M	Slotted Channel – 41mm x 41mm x 2.5mm
X-CH4182-2.5-3M	X-CH4182-2.5-6M	Slotted Channel – 41mm x 82mm x 2.5mm

X-CH4121-1.5

Beam G Clamp

Code M6	Code M8	Code M10	Code M12	Description
X-BGC-M6	X-BGC-M8	X-BGC-M10	X-BGC-M12	Beam G Clamp

X-BGC-M8

Channel Clamp

Code Type 1	Code Type 2	Code Type 3	Code Type 4	Code Type 5	Code Type 6	Code Type 8	Description
X-CBC-1	X-CBC-2	X-CBC-3	X-CBC-4	X-CBC-5	X-CBC-6	X-CBC-8	Channel Clamp

Type 1   Type 2   Type 3   Type 4   Type 5   Type 6   Type 8

Others

Code	Description
X-BP810	Back Plate – M8 / M10
X-CB90-1H1H	90 Degree Bracket – 1 Hole / 1 Hole
X-CB90-1H2H	90 Degree Bracket – 1 Hole / 2 Hole
X-CB90-2H2H	90 Degree Bracket – 2 Hole / 2 Hole
X-CH-4-IS	Channel 4 Way Intersection
X-CH-A	Channel Offset – 45 Degree
X-CHBC-3M	Channel Black Capping – 3 metres
X-CHBP1W-4141	Channel Base Plate – One Way – 41mm x 41mm
X-CHBP2W-4141	Channel Base Plate – Two Way – 41mm x 41mm
X-CH-1A-45	Channel Internal Angle – 45 Degree
X-CH-1A-45135	Channel Internal Angle – 45 Degree 135

X-CH-IA-45

X-CHBP2W-4141

Channel Wing Fitting

Code Type 1	Code Type 2	Code Type 3	Code Type 4	Description
X-CHWF-1	X-CHWF-2	X-CHWF-3	X-CHWF-4	Channel Wing Fitting

Type 1   Type 2   Type 3   Type 4

SLOTTED CHANNEL AND ACCESSORIES

Channel U Brackets

Code	Description
X-CBU-4121	Channel U Bracket – 41mm x 21mm
X-CBU-4141	Channel U Bracket – 41mm x 41mm
X-CBU-4162	Channel U Bracket – 41mm x 62mm

X-CHU-4121

Channel Z Brackets

Code	Description
X-CHZB-4121	Channel Z Bracket – 41mm x 21mm
X-CHZB-4141	Channel Z Bracket – 41mm x 41mm

X-CHZ-2121

Window Brackets

Code	Description
X-CWB-4121	Window Bracket – 41mm x 21mm
X-CWB-4141	Window Bracket – 41mm x 41mm
X-CWB-4182	Window Bracket – 41mm x 82mm

X-CWB-4121

Flat Plates

Code 2 Hole	Code 3 Hole	Code 4 Hole	Code 5 Hole	Description
X-FP2H	X-FP3H	X-FP4H	X-FP5H	Flat Plate

X-FP4H

Other Plates

Code	Description
X-FP3H-90	Flat Plate – 3 Hole – 90 Degree
X-TBR4H	T Bracket – 4 Hole
X-TBR4H-90	T Bracket – 4 Hole – 90 Degree

X-TBR4H

Purling Clips

Code	Description	Quantity
X-PC	Purling Clip Z10 Beam Clamp	Pack of 100
X-PC-M10	Purling Clip – Pull On – M10	Pack of 100
X-PC-M8	Purling Clip – Pull On – M8	Pack of 100

X-PC   **X-PC-M8**

Channel 4 Hole Internal/External Connectors

Code	Description
X-CEC4H-4121	Channel 4 Hole – External Connector – 41mm x 21mm
X-CEC4H-4141	Channel 4 Hole – External Connector – 41mm x 41mm
X-CIC4H-4121	Channel 4 Hole – Internal Connector – 41mm x 21mm
X-CIC4H-4141	Channel 4 Hole – Internal Connector – 41mm x 41mm

X-CEC4H-4121   **X-CIC4H-4121**

CHANNEL ACCESSORIES - CABLE TRAYS

Plastic End Caps

Code Black	Code White	Description	Quantity
X-CHCB-4121	X-CHCW-4121	Plastic End Caps – 41mm x 21mm	Box of 100
X-CHCB-4141	X-CHCW-4141	Plastic End Caps – 41mm x 41mm	Box of 100
X-CHCB-4121B6	X-CHCW-4121B6	Plastic End Caps – 41mm x 21mm	Bag of 6
X-CHCB-4141B6	X-CHCW-4141B6	Plastic End Caps – 41mm x 41mm	Bag of 6

X-CHCW-4121
X-CHCB-4121

Threaded Rod

Code M6	Code M8	Code M10	Code M12	Description
X-TR-M6-3M	X-TR-M8-3M	X-TR-M10-3M	X-TR-M12-3M	Threaded Rod – 3 metre length

X-TR-M8-3M

Studding Caps

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-SCA-M6	X-SCA-M8	X-SCA-M10	X-SCA-M12	Studding Caps	Box of 100
X-SCA-M6-B30	X-SCA-M8-B30	X-SCA-M10-B30	X-SCA-M10-B30	Studding Caps	Bag of 30

X-SCA-M8

Cable Tray

Code	Description
X-CTMD-PG-50-3M	Cable Tray – Medium Duty Pre Galv. – 50mm x 3 metres
X-CTMD-PG-75-3M	Cable Tray – Medium Duty Pre Galv. – 75mm x 3 metres
X-CTMD-PG-100-3M	Cable Tray – Medium Duty Pre Galv. – 100mm x 3 metres
X-CTMD-PG-150-3M	Cable Tray – Medium Duty Pre Galv. – 150mm x 3 metres
X-CTMD-PG-225-3M	Cable Tray – Medium Duty Pre Galv. – 225mm x 3 metres
X-CTMD-PG-300-3M	Cable Tray – Medium Duty Pre Galv. – 300mm x 3 metres
X-CTMD-PG-450-3M	Cable Tray – Medium Duty Pre Galv. – 450mm x 3 metres
X-CTMD-PG-600-3M	Cable Tray – Medium Duty Pre Galv. – 600mm x 3 metres

Cable Tray Flat Bends

Code 90 Degree	Code 45 Degree	Description
X-CTMD-B-50	X-CTMD-FB-50	Cable Tray Flat Bend – 50mm
X-CTMD-B-75	X-CTMD-FB-75	Cable Tray Flat Bend – 75mm
X-CTMD-B-100	X-CTMD-FB-100	Cable Tray Flat Bend – 100mm
X-CTMD-B-150	X-CTMD-FB-150	Cable Tray Flat Bend – 150mm
X-CTMD-B-225	X-CTMD-FB-225	Cable Tray Flat Bend – 225mm
X-CTMD-B-300	X-CTMD-FB-300	Cable Tray Flat Bend – 300mm
X-CTMD-B-450	X-CTMD-FB-450	Cable Tray Flat Bend – 450mm

X-CTMD-FB-150

Cable Tray Tees

Code	Description
X-CTMD-TP-75	Cable Tray Tee – 75mm
X-CTMD-TP-100	Cable Tray Tee – 100mm
X-CTMD-TP-150	Cable Tray Tee – 150mm
X-CTMD-TP-225	Cable Tray Tee – 225mm
X-CTMD-TP-300	Cable Tray Tee – 300mm
X-CTMD-TP-450	Cable Tray Tee – 450mm

X-CTMD-TP-150

Other cable tray accessories are available upon request and come in light, heavy and hot dipped galvanised versions

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CABLE TRAYS AND ACCESSORIES

Cable Tray Intersection

Code	Description
X-CTMD-IS-75	Cable Tray Intersection – 75mm
X-CTMD-IS-100	Cable Tray Intersection – 100mm
X-CTMD-IS-150	Cable Tray Intersection – 150mm
X-CTMD-IS-225	Cable Tray Intersection – 225mm
X-CTMD-IS-300	Cable Tray Intersection – 300mm
X-CTMD-IS-450	Cable Tray Intersection – 450mm

medium and heavy duty versions available
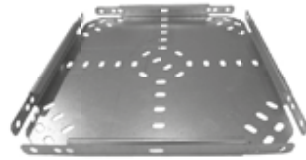
X-CTMD-IS-300

Cable Tray Reducer

Code	Description
X-CTMD-R-150100	Cable Tray Reducer – 150mm x 100mm
X-CTMD-R-225150	Cable Tray Reducer – 225mm x 150mm
X-CTMD-R-300150	Cable Tray Reducer – 300mm x 150mm
X-CTMD-R-300225	Cable Tray Reducer – 300mm x 225mm
X-CTMD-R-450300	Cable Tray Reducer – 450mm x 300mm
X-CTMD-R-600450	Cable Tray Reducer – 600mm x 450mm

medium and heavy duty versions available

X-CTMD-R-300225

Cable Tray Hanger

Code	Description
X-CTH-PG-50	Cable Tray Hanger – Pre-Galv. – 50mm
X-CTH-PG-75	Cable Tray Hanger – Pre-Galv. – 75mm
X-CTH-PG-100	Cable Tray Hanger – Pre-Galv. – 100mm
X-CTH-PG-150	Cable Tray Hanger – Pre-Galv. – 150mm
X-CTH-PG-225	Cable Tray Hanger – Pre-Galv. – 225mm
X-CTH-PG-300	Cable Tray Hanger – Pre-Galv. – 300mm

X-CTH-PG-100

Cable Tray Stand Off Bracket

Code	Description
X-CTMD-SOB-75	Cable Tray Stand Off Bracket – Medium Duty – 75mm
X-CTMD-SOB-100	Cable Tray Stand Off Bracket – Medium Duty – 100mm
X-CTMD-SOB-150	Cable Tray Stand Off Bracket – Medium Duty – 150mm
X-CTMD-SOB-225	Cable Tray Stand Off Bracket – Medium Duty – 225mm
X-CTMD-SOB-300	Cable Tray Stand Off Bracket – Medium Duty – 300mm
X-CTMD-SOB-450	Cable Tray Stand Off Bracket – Medium Duty – 450mm

hot dipped galvanised versions available

X-CTMD-SOB-150

Cable Tray Accessories

Code	Description
X-CTCHD-PG	Cable Tray Coupler – Medium Duty

X-CTCHD-PG

BASKET TRAY AND ACCESSORIES

INSTALL+

Basket Tray

Code	Description
X-BT-60	Basket Tray – 60mm x 60mm x 3m
X-BT-100	Basket Tray – 100mm x 60mm x 3m
X-BT-150	Basket Tray – 150mm x 60mm x 3m
X-BT-200	Basket Tray – 200mm x 60mm x 3m
X-BT-300	Basket Tray – 300mm x 60mm x 3m
X-BT-400	Basket Tray – 400mm x 60mm x 3m
X-BT-450	Basket Tray – 450mm x 60mm x 3m
X-BT-500	Basket Tray – 500mm x 60mm x 3m
X-BT-600	Basket Tray – 600mm x 60mm x 3m
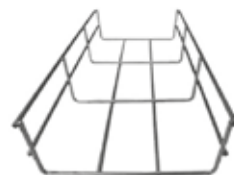
X-BT-100

Basket Tray Quik Connect

Code	Description
X-BTM-100	Basket Tray Quik Connect – 100mm x 60mm x 3m
X-BTM-150	Basket Tray Quik Connect – 150mm x 60mm x 3m
X-BTM-200	Basket Tray Quik Connect – 200mm x 60mm x 3m
X-BTM-300	Basket Tray Quik Connect – 300mm x 60mm x 3m

X-BTM-100

Basket Tray Wall Support Bracket

Code	Description
X-BTWB-150	Basket Tray Wall Support Bracket – 150mm
X-BTWB-200	Basket Tray Wall Support Bracket – 200mm
X-BTWB-300	Basket Tray Wall Support Bracket – 300mm
X-BTWB-400	Basket Tray Wall Support Bracket – 400mm

X-BTWB-150

Basket Tray Ceiling Bracket

Code	Description
X-BTCB-150	Basket Tray Ceiling Bracket - 150mm
X-BTCB-200	Basket Tray Ceiling Bracket - 200mm
X-BTCB-300	Basket Tray Ceiling Bracket - 300mm

X-BTCB-150

Basket Tray Accessories

Code	Description
X-BTC	Basket Tray Couplers – Pair
X-BT-CH	Basket Tray Central Support Hangers - Pair
X-BT-HDC	Basket Tray Hold Down Clamp
X-BTJ	Basket Tray Jointing Kit – 4 Part Kit
X-BT-SH	Basket Tray Suspension Hanger
X-BT-PC	Basket Clamping Piece – Pack of 50
X-BT-FC	Basket Corner Connector – Pack of 50

X-BTC

X-BT-CH

X-BT-SH

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WASHERS

Penny Washers

X-WA8-30

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-WA6-25-B25	X-WA8-25-B25	X-WA10-25-B25	X-WA12-25-B25	Penny Washer 25mm	Bag of 25
X-WA6-25-B100	X-WA8-25-B100	X-WA10-25-B100	X-WA12-25-B100	Penny Washer 25mm	Box of 100
X-WA6-30-B100	X-WA8-30-B100	X-WA10-30-B100	X-WA12-30-B100	Penny Washer 30mm	Box of 100
X-WA6-40-B100	X-WA8-40-B100	X-WA10-40-B100	X-WA12-40-B100	Penny Washer 40mm	Box of 100

Flat / Form A Washer

X-WA-M8

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-WA-M6-B100	X-WA-M8-B100	X-WA-M10-B100	X-WA-M12-B100	Flat/Form A Washer	Box of 100

Shake Proof Washers

X-SPW-M8

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-SPW-M6-B100	X-SPW-M8-B100	X-SPW-M10-B100	X-SPW-M12-B100	Shake Proof Washer	Box of 100

Square Plate Washers

X-SQPW-M8

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-SQPW-M6-B6	X-SQPW-M8-B6	X-SQPW-M10-B6	X-SQPW-M12-B6	Square Plate Washer	Bag of 6
X-SQPW-M6-B100	X-SQPW-M8-B100	X-SQPW-M10-B100	X-SQPW-M12-B100	Square Plate Washer	Box of 100

NUTS

INSTALL +

| X-CNLS-M8 | X-CNSS-M8 | X-CN-M8 | X-HN-M8 | X-WN-M8 | X-RBN-M6-16 |
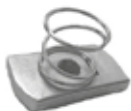
Long Spring Channel Nut

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-CNLS-M6-B6	X-CNLS-M8-B6	X-CNLS-M10-B6	X-CNLS-M12-B6	Long Spring Channel Nut	Bag of 6
X-CNLS-M6-B100	X-CNLS-M8-B100	X-CNLS-M10-B100	X-CNLS-M12-B100	Long Spring Channel Nut	Box of 100

Short Spring Channel Nut

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-CNSS-M6-B6	X-CNSS-M8-B6	X-CNSS-M10-B6	X-CNSS-M12-B6	Short Spring Channel Nut	Bag of 6
X-CNSS-M6-B100	X-CNSS-M8-B100	X-CNSS-M10-B100	X-CNSS-M12-B100	Short Spring Channel Nut	Box of 100

Plain Channel Nut

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-CN-M6-B8	X-CN-M8-B8	X-CN-M10-B8	X-CN-M12-B8	Plain Channel Nut	Bag of 8
X-CN-M6-B100	X-CN-M8-B100	X-CN-M10-B100	X-CN-M12-B100	Plain Channel Nut	Box of 100

Hexagonal Nuts & Cover

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-HN-M6-B25	X-HN-M8-B25	X-HN-M10-B25	X-HN-M12-B25	Hexagonal Nut	Bag of 25
X-HN-M6-B100	X-HN-M8-B100	X-HN-M10-B100	X-HN-M12-B100	Hexagonal Nut	Box of 100
	X-HNC-M8-B10	X-HNC-M10-B10		Hexagonal Nut Cover	Bag of 10

Wedge Nut

Code M6	Code M8	Code M10	Code M12	Description	Quantity
X-WN-M6-B100	X-WN-M8-B100	X-WN-M10-B100	X-WN-M12-B100	Wedge Nut	Box of 100

Roofing Bolt & Nut

Code M6 - 12mm	Code M6 -16mm	Code M6- 20mm	Description	Quantity
X-RBN-M6-12-B20	X-RBN-M6-16-B20	X-RBN-M6-20-B20	Roofing Nut & Bolt	Bag of 20
X-RBN-M6-12-B100	X-RBN-M6-16-B100	X-RBN-M6-20-B100	Roofing Nut & Bolt	Box of 100

SCREWS

Hex Sets

X-SS8-30

Code M6	Code M8	Code M10	Code M12	Description	Quantity
			X-SS12-25-B10	Hex Set 25mm	Bag of 10
			X-SS12-25-B100	Hex Set 25mm	Box of 100
X-SS6-30-B10	X-SS8-30-B10	X-SS10-30-B10	X-SS12-30-B10	Hex Set 30mm	Bag of 10
X-SS6-30-B100	X-SS8-30-B100	X-SS10-30-B100	X-SS12-30-B100	Hex Set 30mm	Box of 100
		X-SS10-35-B10		Hex Set 35mm	Bag of 10
		X-SS10-35-B100		Hex Set 35mm	Box of 100
	X-SS8-40-B10		X-SS12-40-B10	Hex Set 40mm	Bag of 10
	X-SS8-40-B100	X-SS10-40-B100	X-SS12-40-B100	Hex Set 40mm	Box of 100
	X-SS8-50-B10	X-SS10-50-B10		Hex Set 50mm	Bag of 10
	X-SS8-50-B100	X-SS10-50-B100		Hex Set 50mm	Box of 100

Coach Screws

X-CS-M1050

Code M8	Code M10	Description	Quantity
X-CS-M830-B5	X-CS-M1030-B5	Coach Screw 30mm	Bag of 5
X-CS-M830-B100	X-CS-M1030-B100	Coach Screw 30mm	Box of 100
X-CS-M850-B5	X-CS-M1050-B5	Coach Screw 50mm	Bag of 5
X-CS-M850-B100	X-CS-M1050-B100	Coach Screw 50mm	Box of 100

Twin Fast Screws

X-TF8-1-1/2

Code 1"	Code 1-1/2"	Code 2"	Code 2-1/2"	Description	Quantity
X-TF8-1	X-TF81-1/2	X-TF8-2		Twin Fast Screw Size 8	Box of 200
X-TF10-1	X-TF10-1-1/2	X-TF10-2	X-TF10-2-1/2	Twin Fast Screw Size 10	Box of 200

TEK Screws

X-TEK5.5-25

Code	Description	Quantity
X-TEK5.5-25-B100	TEK Screw 5.5 x 25mm	Box of 100
X-TEK5.5-38-B100	TEK Screw 5.5 x 38mm	Box of 100
X-TEK-MAGBIT	5/16 Magnetic Socket Adaptor	

Plaster Board Screw

X-PBS

Code	Description	Quantity
X-PBS	Plaster Board Screw 15mm	Box of 100

Stud Connectors

X-SCON-M10

Code M8	Code M10	Description	Quantity
X-SCON-M8-B4	X-SCON-M10-B4	Stud Connector	Bag of 4
X-SCON-M8-B100	X-SCON-M10-B100	Stud Connector	Box of 100

Wall Plugs

X-WPR-5MM   X-WPB-7MM

Code	Description	Quantity
X-WPR-5MM	Wall Plug 5mm - Red	Box of 100
X-WPB-7MM	Wall Plug 7mm - Brown	Box of 100
X-WPG-8/10MM	Wall Plug 8/10mm - Grey	Box of 25

BOLTS

ANCHOR BOLTS

Code	Description	Quantity
X-AB-8/10-100-B4	Anchor Bolt 8mm 10-100	Bag of 4
X-AB-M10-B100	Anchor Bolt 8mm 10-100	Box of 100
X-AB-M10-60-B4	Anchor Bolt 8mm 10-60	Bag of 4
X-AB-M10-60-B100	Anchor Bolt 8mm 10-60	Box of 100

X-AB-8/10

LOOSE BOLT SHIELD ANCHOR

Code	Description	Quantity
X-LBSA-0810L	Loose Bolt Shield Anchor - 0810L	Box of 50
X-LBSA-1010L	Loose Bolt Shield Anchor - 1010L	Box of 50
X-LBSA-1025L	Loose Bolt Shield Anchor - 1025L	Box of 50

X-LBSA-0810L

EYE BOLT

Code	Description	Quantity
X-EB-M8-B25	Eye Bolt - M8 x 80mm	Box of 25
X-EB-M10-B10	Eye Bolt - M10 x 80mm	Box of 10

X-EB-M8

SOCKET BOLTS

Screw anchor TSM 6x35 and 6x55 by M8/M10 (countersunk head with metric internal thread), for fastening pipelines, ceiling brackets, ventilation ducts and timber substructures.

Code	Description	Quantity
X-SB810-B4	Socket Bolt M8-M10	Box of 50
X-SB810-B100	Socket Bolt M8-M10	Box of 50
X-SBL2810-B100	Socket Bolt Loose M8-M10 (2 Piece)	Box of 50
X-SBL810-B4	Socket Bolt Loose M8-M10 (3 Piece)	Box of 50
X-SBL810-B100	Socket Bolt Loose M8-M10 (3 Piece)	Box of 50

Part code	Description	Quantity
X-SBL-810-35-B50	Socket bolt loose M8-M10 (3 piece) 35mm	Box of 50
X-SBL-810-55-B50	Socket bolt loose M8-M10 (3 piece) 55mm	Box of 50

X-SB810

X-SBL-810-35/55-B50

Drill correct diameter hole to corresponding depth

Clean hole by blowing to remove drilling debris and dust

Insert anchor into concrete using suitable impact wrench

tighten with torque wrench to recommended torque

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BOLTS

INSTALL +
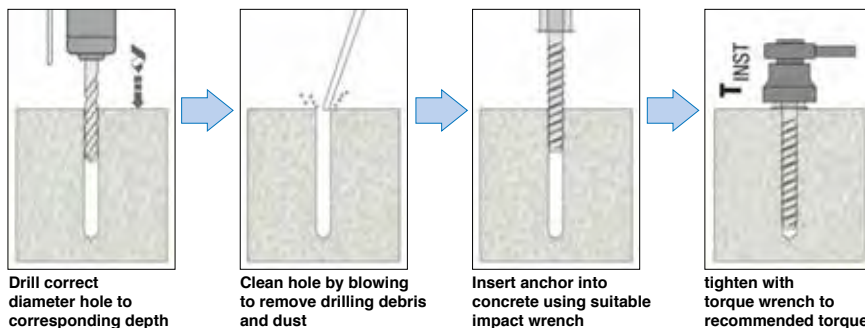
DROP IN ANCHOR

X-DIA-M10

X-DIAL-M10 (Lipped)

Code M8	Code M10	Code M12	Description	Quantity
X-DIA-M8-B10	X-DIA-M10-B10	X-DIA-M12-B10	Drop In Anchor	Bag of 10
X-DIA-M8-B100	X-DIA-M10-B50	X-DIA-M12-B50	Drop In Anchor	M8 Box of 100 - M10/M12 Box of 50
X-DIAL-M8-B100	X-DIAL-M10-B50	X-DIAL-M12-B50	Drop In Anchor Lipped	M8 Box of 100 - M10/M12 Box of 50
X-DIA-ST			Drop In Anchor Setting Tool	Singles

CLAMPS AND CLIPS

UNLINED M8-M10 PIPE CLAMPS

Code	Description	Quantity
X-PCU-15-18	Pipe Clamp Unlined – 15-18mm	Pack of 50
X-PCU-20-25	Pipe Clamp Unlined – 20-25mm	Pack of 50
X-PCU-26-30	Pipe Clamp Unlined – 26-30mm	Pack of 50
X-PCU-32-36	Pipe Clamp Unlined – 32-36mm	Pack of 50
X-PCU-38-43	Pipe Clamp Unlined – 38-43mm	Pack of 50
X-PCU-44-49	Pipe Clamp Unlined – 44-49mm	Pack of 50
X-PCU-56-61	Pipe Clamp Unlined – 56-61mm	Pack of 50
X-PCU-75-80	Pipe Clamp Unlined – 75-80mm	Pack of 50
X-PCU-87-92	Pipe Clamp Unlined – 87-92mm	Pack of 50
X-PCU-108-116	Pipe Clamp Unlined – 108-116mm	Pack of 25

CLAMPS AND CLIPS

BACK PLATE 810-HD

Back plate for mounting M8/M10 threaded rod. Secure threaded rod to a wall or ceiling safely. Our Back Plate is used for Mounting M8 / M10 Threaded Rod safely to a wall or ceiling. Made from zinc plated steel, this back plate has a thickness of 3mm and comes in a box of 50.

Part code	Description	Material	Length	Width	Quantity
BackPlate-810-HD	Back Plate for Mounting M8/M10 Threaded Rod	2.5mm Zinc Plated Steel	80	30	50

K-KLAMP PIPE AND INSULATION CLAMP

K-KLAMP eliminates having to double-wrap, glue and tape the insulation on strut-mounted clamps. K-KLAMP pipe and insulation coupling reduces the time required to insulate copper tubing used for refrigerant lines. Our clamp allows sections of closed-cell insulation to be secured at fixing points.

k•klamp

Part code	Insulation wall thickness			
	3/8"	1/2"	3/4"	1"
1/4"	K38-14	-	K34-14	-
3/8"	K38-38	K12-38	K34-38	-
1/2"	K38-12	K12-12	K34-12	K100-12
5/8"	K38-58	K12-58	K34-58	K100-58
3/4"	K38-34	K12-34	K34-34	K100-34
7/8"	K38-78	K12-78	K34-78	K100-78
1"	K38-100	K12-100	-	-
1-1/8"	K38-118	K12-118	K34-118	K100-118
1-3/8"	K38-138	K12-138	K34-138	K100-138
1-5-8"	K38-158	K12-158	K34-158	K100-158
2-1/8"	K38-218	K12-218	K34-218	K100-218
2-5/8"	-	K12-258	K34-258	K100-258
3-1/8"	-	K12-318	K34-318	K100-318
3-5/8"	-	K12-358	K34-358	K100-358
4-1/8"	-	K12-418	K34-418	K100-418

Copper pipe I.D.

CLAMPS AND CLIPS

HINGED LINED PIPE CLAMP

These hinged lined pipe clamps are suitable for supporting all types of pipe work including HVAC, boiler and drain. They come with noise supressing rubber strips: 17dB(A) according to ISO 3822-1.

Part code	Description	Quantity
RLC-020-GS	Single Hinged Pipe Clamp M8-10 lined 3/8" 15-19mm	Box of 50
RLC-024-GS	Single Hinged Pipe Clamp M8-10 lined 1/2" 20-24mm	Box of 50
RLC-029-GS	Single Hinged Pipe Clamp M8-10 lined 3/4" 25-29mm	Box of 50
RLC-035-GS	Single Hinged Pipe Clamp M8-10 lined 1" 32-36mm	Box of 50
RLC-042-GS	Single Hinged Pipe Clamp M8-10 lined 1-1/4" 40-45mm	Box of 50
RLC-053-GS	Single Hinged Pipe Clamp M8-10 lined 1-1/2" 48-53mm	Box of 50
RLC-065-GS	Single Hinged Pipe Clamp M8-10 Lined 2" 58-63mm	Box of 50

RUBBER-LINED UNIVERSAL PIPE CLAMP

The M8-M10 rubber-lined pipe clamp are suitable for supporting all types of pipework including HVAC, boiler and drain. They come with noise supressing rubber strips: 17dB(A) according to ISO 3822-1.

Part code	Description	Quantity
RLC-015	Pipe Clamp M8-10 Rubber lined 1/4" 11/15mm	Box of 50
RLC-020	Pipe Clamp M8-10 lined 3/8" 14-19mm	Box of 50
RLC-024	Pipe Clamp M8-10 lined 1/2" 20-24mm	Box of 50
RLC-029	Pipe Clamp M8-10 lined 3/4" 25-29mm	Box of 50
RLC-035	Pipe Clamp M8-10 lined 1" 32-36mm	Box of 50
RLC-044	Pipe Clamp M8-10 lined 1-1/4" 37-44mm	Box of 50
RLC-050	Pipe Clamp M8-10 lined 1-1/2" 44-50mm	Box of 50
RLC-058	Pipe Clamp M8-10 lined 50-58mm	Box of 50
RLC-068	Pipe Clamp M8-10 lined 2" 58-68mm	Box of 50
RLC-078	Pipe Clamp M8-10 lined 2-1/2" 68-78mm	Box of 50
RLC-088	Pipe Clamp M8-10 lined 78-88mm	Box of 50
RLC-098	Pipe Clamp M8-10 lined 3" 88-98mm	Box of 25
RLC-108	Pipe Clamp M8-10 lined 3-1/2" 98-108mm	Box of 25
RLC-118	Pipe Clamp M8-10 lined 4" 108-118mm	Box of 25
RLC-128	Pipe Clamp M8-10 lined 118-128mm	Box of 25
RLC-138	Pipe Clamp M8-10 lined 128-138mm	Box of 25
RLC-148	Pipe Clamp M8-10 lined 135-148mm	Box of 25
RLC-164	Pipe Clamp M8-10 lined 151-164mm	Box of 25
RLC-175	Pipe Clamp M8-10 lined 6" 165-175mm	Box of 10
RLC-185	Pipe Clamp M8-10 lined 175-185mm	Box of 10
RLC-205	Pipe Clamp M8-10 lined 194-205mm	Box of 10

SWITCHES, ISOLATORS AND STUFFING GLANDS

INSTALL+

FUSED SPUR SWITCHES

Fused Spur Metal

Code	Description
X-FSBBMC	Fused Spur Metal Clad – with Back Box
X-FSNBBMC	Fused Spur Metal Clad – with Back Box & Neon
X-FS	Fused Spur Plastic – without neon
X-FSN	Fused Spur Plastic – with neon
X-BBSM-25	Back Box Surface Mount – 25mm
X-BBSM-35	Back Box Surface Mount – 35mm
X-BBSM26-25	Back Box 2 Gang – 25mm
X-BBSM2G-35	Back Box 2 Gang – 35mm
X-BSPS-10A	Plug Socket – 10 Amp
X-2GSW2W-10A	Switch 2 Gang – 10 Amp
X-3GSW2W-10A	Switch 3 Gang – 10 Amp
X-1GDPSW-13A	Switch 1 Gang – 13 Amp
X-2GDPSW-13A	Switch 2 Gang – 13 Amp
X-DPSW-20A	Switch Double Pole – 20 Amp
X-PT	Plug Top – 13 Amp

Fused Spur Plastic

ROTARY ENCLOSED ISOLATORS

Our insulated 3 and 4 pole rotary enclosed isolators are CE marked and suitable for disconnecting the power supply to outdoor air conditioning units.

The isolators are weatherproof to IP65, easy to install and conform to IEC 60947-3. They have a lockable off position and interlocking cover which can be removed only in the off position. Earth and neutral terminals included and M20/25 knockouts up to 63A.

Code	No of poles	AMPS AC21	AC23 A 240VA	AC23 A 400VA	Cable capacity		Height	Width	Depth
					Solid	Stranded			
IS-3P-20A-S	3	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-3P-32A-S	3	32 amp	11kW	7.5kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-3P-20A	3	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-32A	3	30amp	11kW	7.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-40A	3	40amp	15kW	11kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-3P-63A	3	63amp	22kW	18.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-20A-S	4	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-4P-32A-S	4	32 amp	11kW	7.5kW	1-16mm²	0.75-10mm²	125mm	100mm	120mm
IS-4P-20A	4	20amp	5.5kW	3.7kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-32A	4	32amp	11kW	7.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-40A	4	40amp	15kW	11kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm
IS-4P-63A	4	63amp	22kW	18.5kW	1-16mm²	0.75-10mm²	175mm	114mm	135mm

STUFFING GLANDS

Code Black	Code White	Description	Quantity
X-CSG-208-B10	**X-CSG-20W-B10**	Cable Stuffing Gland – 20mm	Pack of 10
X-CSG-25B-B10	**X-CSG-25W-B10**	Cable Stuffing Gland – 25mm	Pack of 10

Stuffing Gland White

Stuffing Gland Black

DiversiTech INTERNATIONAL

Glaisdale Drive East | Nottingham NG8 4LY | United Kingdom

CABLES AND ACCESSORIES

Cable

	CY		WF		YY		SY

Code CY	Code WF	Code YY	Code SY	Description	Length
X-CY0.75-2C-100				Cable 2 Core 0.75mm	100m
X-CY0.75C-2C-50	X-WF0.75-2C-50			Cable 2 Core 0.75mm	50m
X-CY1-2C-100	X-WF1-2C-100			Cable 2 Core 1mm	100m
X-CY1-2C-50	X-WF1-2C-50			Cable 2 Core 1mm	50m
X-CY1.5-2C-100		X-YY1.5-2C-100		Cable 2 Core 1.5mm	100m
X-CY1.5-2C-50				Cable 2 Core 1.5mm	50m
	X-WF0.75-3C-50			Cable 3 Core 0.75mm	50m
	X-WF1-3C-50			Cable 3 Core 1mm	50m
			X-SY1.5-3C-100	Cable 3 Core 1.5mm	100m
	X-WF1.5-3C-50			Cable 3 Core 1.5mm	50m
		X-YY2.5-3C-100	X-SY2.5-3C-100	Cable 3 Core 2.5mm	100m
	X-WF2.5-3C-50		X-SY2.5-3C-50	Cable 3 Core 2.5mm	50m
		X-YY0.75-4C-100		Cable 4 Core 0.75mm	100m
		X-YY0.75-4C-50		Cable 4 Core 0.75mm	50m
			X-SY1-4C-100	Cable 4 Core 1mm	100m
		X-YY1.5-4C-100	X-SY1.5-4C-100	Cable 4 Core 1.5mm	100m
		X-YY1.5-4C-50	X-SY1.5-4C-50	Cable 4 Core 1.5mm	50m
		X-YY2.5-4C-100	X-SY2.5-4C-100	Cable 4 Core 2.5mm	100m
		X-YY2.5-4C-50		Cable 4 Core 2.5mm	50m
			X-SY1.5-5C-100	Cable 5 Core 1.5mm	100m
			X-SY1.5-5C-50	Cable 5 Core 1.5mm	50m
			X-SY2.5-5C-100	Cable 5 Core 2.5mm	100m
			X-SY2.5-5C-50	Cable 5 Core 2.5mm	50m
		X-YY1.5-7C-100		Cable 7 Core 1.5mm	100m
		X-YY1.5-7C-50		Cable 7 Core 1.5mm	50m

Cable Ties / Cable Tie Mounts

Code	Description	Quantity
X-CT100-2.5B-B100	Cable Tie 100mm x 2.52mm - Black	Pack of 100
X-CT300-4.8B-B100	Cable Tie 300mm x 4.8mm - Black	Pack of 100
X-CT300-4.8W-B100	Cable Tie 300mm x 4.8mm – White	Pack of 100
X-CT300-7.6B-B100	Cable Tie 300mm x 7.6mm – Black	Pack of 100
X-CT480-13B-B100	Cable Tie 480mm x 13mm – Black	Pack of 100
X-CT730-13B-B100	Cable Tie 730mm x 13mm – Black	Pack of 100
ID-BT-250	Cable Tie 250mm x 20mm – Ivory	Pack of 20
ID-BT-350	Cable Tie 350mm x 20mm – Ivory	Pack of 20
X-CB28-BL-B100	Cable Tie Base – 28mm Self Adhesive – Black	Pack of 100
X-CB28-W-B100	Cable Tie Base – 28mm Self Adhesive - White	Pack of 100

Code	Description	Quantity
CTM-1	Cable Tie Mount – Screw Fixing	Pack of 100
CTM-2	Cable Tie Mount – with Studding	Pack of 100

CABLE TIES VARIOUS

ID-BT-250

CTM-1 **CTM-2**

FLEXI SUPPORT SYSTEMS

FLEXI RANGE
PAGE 101

OIL & LUBRICANTS

VACUUM PUMP OIL

INSTALL+ ROBINAIR

Robinair Premium Vacuum Pump Oil
ROBINAIR Premium High Vacuum Pump Oil

- Mineral oil
- Chemically engineered to maintain maximum viscosity at high running temperatures and to improve cold weather starts
- Thermal stability – resists break-down due to heat
- Lower moisture content – due to special packaging and handling procedures
- Performance of your pump depends largely on the quality and purity of the vacuum pump oil that you use

Code	Description	Quantity
RA-13119	Premium High Vacuum Pump Oil, 0.475 Litres (16oz)	12
RA-13203	Premium High Vacuum Pump Oil, 0.95 Litres (32oz)	12
RA-13204	Premium High Vacuum Pump Oil, 3.8 Litres (128.5oz)	4

SYNTHETIC REFRIGERATION OIL

1L   5L   10L

Part code	Description	Size
601231292	Fuchs Reniso Triton SEZ 22	5 L
600669812	Fuchs Renison Triton SEZ 32	1L
601231339	Fuchs Reniso Triton SEZ 32	5L
600646509	Fuchs Reniso Triton SE55	1L
601231414	Fuchs Reniso Triton SE 55	5 L
600680107	Fuchs Reniso Triton SEZ 68	1L
601231254	Fuchs Renison Triton SEZ 68	5L
601231278	Fuchs Reniso Triton SE 170	5L
600680442	Fuchs Reniso Triton SE 170	10L
600756512	Fuchs Reniso PAG 100	1L
600741105	Fuchs Reniso C85 E	1L
600360382	Fuchs Reniso C85 E	10L

SYNTHETIC REFRIGERATION OIL

RENISO C 85 E
Synthetic refrigeration oil for CO_2 compressors

Description

RENISO C 85 E is a special synthetic refrigeration oil based on synthetic esters. Selected additives guarantee excellent wear protection, also under the influence of CO_2 in the compressor. RENISO C 85 E has an excellent solubility / miscibility with the refrigerant carbon dioxide (R 744).

Application

RENISO C 85 E was developed for use mainly in refrigeration systems (deep-temperature systems, cascades, etc.) which are working with the refrigerant CO_2 (R 744). RENISO C 85 E has an excellent solubility / miscibility with CO_2 which guarantees the oil circulation in the refrigeration system, especially at low evaporation temperatures. RENISO C 85 E can be used in almost any application in industrial and commercial refrigeration, e.g. large-scale cooling plants. RENISO C 85 E can also be used in transcritical CO_2 cycles, e.g. air conditioning and heat pump systems, as well as container cooling systems.

Specifications

RENISO C 85 E is a refrigeration oil acc. to DIN 51503: KB – refrigeration oils for CO_2.

NSF H2 registration:
registration no. 146755

Advantages

- **High thermal stability**

- **High chemical stability with CO_2 refrigerant**

- **Excellent miscibility with CO_2 – also at low temperatures**

- **Excellent deep-temperature flowability**

- **Excellent lubrication at high pressure levels under CO_2 atmosphere**

- **Excellent experience in test facilities and prototype systems**

- **Used by leading compressor manufacturers. Approvals:**

  DORIN
  GEA BOCK
  GEA GRASSO
  JOHNSON CONTROLS INTERNATIONAL

Properties	Unit		Test Method
Colour		0.5	DIN ISO 2049
Density at 15 °C	kg/m^3	993	DIN 51757
Flashpoint	°C	246	DIN ISO 2592
Kinematic viscosity at 40 °C at 100 °C	mm^2/s mm^2/s	80 10.6	DIN EN ISO 3104
Viscosity index	-	118	DIN ISO 2909
Pourpoint	°C	- 42	DIN ISO 3016
Neutralisation number	mgKOH/g	0.03	DIN 51558-1
Water content	mg/kg	< 30	DIN 51777-2

SYNTHETIC REFRIGERATION OIL

INSTALL+

FUCHS

RENISO TRITON SE/SEZ
Synthetic refrigeration oils based on polyol esters (POE) for HFC/FC refrigerants

Description

The refrigeration oils of the RENISO TRITON SE/SEZ series are based on synthetic esters that were especially developed for use with chlorine-free, fluorinated hydrocarbons (HFC/FC). In contrast to conventional refrigeration oils, these are miscible and compatible with polar HFC/FC.

Application

The RENISO TRITON SE/SEZ series is outstandingly suited for all refrigeration circuits, in which chlorine-free HFC/FC refrigerants, e.g. R134a, R404A or R410A are used. Depending on the viscosity, RENISO TRITON SE/SEZ refrigeration oils are recommended for hermetical, semi-hermetical and open piston compressors and for screw-type and turbo-compressors. RENISO TRITON SEZ 22 is especially suitable for deep-freeze systems operating with R23.

RENISO TRITON SE/SEZ products are also suitable for hydrocarbon refrigerants (e.g. propane, poly-propylene, isobutane) and R22. In such cases please contact FUCHS prior to the usage.

Specifications

RENISO TRITON SE/SEZ lubricants fulfill and exceed the requirements acc. to DIN 51503-1, Groups KC, KD, KE.

Advantages/ Benefits

• **Special synthetic polyolester**

• **Stable lubrication film even at high temperatures, outstanding lubricity**

• **Excellent solubility with HFC and FC refrigerants**

• **Very high thermal and chemical stability in the presence of fluorinated refrigerants**

• **Good viscosity-temperature behavior**

• **Excellent cold temperature flowability**

• **Secure oil return from the system, good heat transfer**

• **Good compatibility with elastomers and materials normally used in refrigeration circuits**

• **Readily biodegradable (ISO VG 32 and ISO VG 55)**

• **Approved by leading compressor manufac-turers**

• **Ultra-dried**

		RENISO TRITON				
Product name		SEZ 22	SEZ 32	SE 55	SEZ 68	
Properties	Unit					Test method
Density at 15 °C	kg/m³	1003	1004	1009	970	DIN 51757
Flash point	°C	248	250	286	258	DIN ISO 2592
Color	-	0	0.5	1.0	0.5	DIN ISO 2049
Kinematic viscosity at 40 °C at 100 °C	mm²/s mm²/s	20 4.4	32 6.1	55 8.8	68 8.9	DIN EN ISO 3104
Viscosity index	-	133	141	137	104	DIN ISO 2909
Pourpoint	°C	-57	-57	-48	-39	DIN ISO 3016
Neutralization number	mgKOH/g	0.03	0.03	0.03	0.03	DIN 51558-1
Water content	mg/kg	< 50	< 50	< 50	< 50	DIN 51777-2

SYNTHETIC REFRIGERATION OIL

RENISO PAG 46 and RENISO PAG 100
Fully synthetic refrigeration oils based on special polyglycols (PAG) for R134a A/C systems

Description

Because of their CI content, CFC refrigerants like R12 destroy the earth's ozone layer. This led all manufacturers to cease production of fully halogenized CFC's and introduce alternative products. This move is a reaction to the ban on CFC's and halons which established a timetable for the progressive ending of CFC production and use. Alternative refrigerants such as R134a have found general acceptance and are currently in use.

As classic refrigeration oils based on mineral oils, polyalphaolefins and alkylbenzene oils are not miscible with R134a, new refrigeration oils had to be developed, RENISO PAG-Series.

Application

Most car and truck air conditioning systems use Japanese- or American-made compressors and R134a refrigerants. These compressors require the use of synthetic, polyglycol-based refrigeration oils such as RENISO PAG 46 or RENISO PAG 100. The RENISO PAG products have an excellent miscibility and compatibility with R134a.

RENISO PAG 46 and RENISO PAG 100 are based on polar polyglycols. The structure of polyglycols make them hygroscopic (= absorb moisture). This means that special care must be taken when handling such products (always keep containers tightly sealed, use nitrogen to cover the refrigeration oil and store drums in dry, air conditioned rooms).

Advantages

- **Very high thermal stability**

- **Excellent miscibility and compatibility with R134a refrigerants (substitute for R12 refrigerants)**

- **Excellent viscosity-temperature behaviour (high VI)**

- **Low viscosity at low temperature, good flowability**

- **Stable lubricating film at high temperatures**

- **Good compatibility with all materials commonly used in refrigeration systems**

- **RENISO PAG 46 and RENISO PAG 100 are ultra-dried**

Product name		PAG 46	PAG 100	
Refrigeration oil type acc. to DIN 51503-1		KD	KD	
Characteristics	**Unit**			**Test method**
Colour		colourless	colourless	Visual
Kinematic viscosity at 40 °C at 100 °C	mm^2/s mm^2/s	55 10.6	120 21	DIN EN ISO 3104
Viscosity index		187	202	DIN ISO 2909
Density at 15 °C	kg/m^3	992	996	DIN 51757
Flashpoint, Cleveland open cup	°C	240	240	DIN ISO 2592
Pourpoint	°C	- 45	- 45	DIN ISO 3016
Neutralisation number	mgKOH/g	0.04	0.04	DIN 51558-1
Water content	ppm	300	300	DIN 51777-2
Stability with R134a, 175 °C / 14 days	--	pass	pass	ASHRAE 97-89

FUCHS SELECTION GUIDE

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals
MINERAL OILS	• **RENISO KM 32** • **RENISO KS 46** • **RENISO KC 68** • **RENISO KES 100**	-	• For NH3 and R22	-
	• **RENISO WF 5 A** • **RENISO WF 7 A** • **RENISO WF 10 A** • **RENISO WF 15 A**	-	• For hydrocarbons (e.g. R600a - hermetic compressors)	-

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals
SYNTHETIC HYDROCARBON OIL	• **RENISO ULTRACOOL 68** • **RENISO ULTRACOOL 100**	• PETROCANADA REFLO 68 • KLUBER RHT 68 • CPI 1009 68 • MOBIL GARGOYLE ARCTIC SHC NH 68 226E • TEXACO CAPELLA P68 • TOTAL LUNARIA NH 68	• NH3 (Ammonia)	NSF H1 registered

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals
POLYALPHAOLEPHINS (PAO) OILS	• **RENISO SYNTH 68**	• PETROCANADA REFLO 68 • KLUBER RHT 68 • CPI 1009 68 • MOBIL GARGOYLE ARCTIC SHC NH 68 226E • TEXACO CAPELLA P68 • TOTAL LUNARIA NH 68	• NH3 (Ammonia)	NSF H1 registered

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals
POLYALKALINEGLYCOL (PAG) OIL	• **RENISO PG68**	-	• AMMONIA AND HYDROCARBONS	-
	• **RENISO LPG 68**	-	• HYDROCARBONS, e.g. R290, R1270, R600a	-

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals
ALKYLBENZENES (AB)	• **RENISO SP 32** • **RENISO SP 46** • **RENISO SP 100** • **RENISO SP 220**	-	• R22 AND HYDROCARBONS	-
	• **RENISO S 3246** • **RENISO S 68**	-	• R22, HYDROCARBONS AND AMMONIA	-

FUCHS SELECTION CHART

INSTALL+   FUCHS

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals

POLYOLESTER (POE) OILS	• **RENISO SEZ 22**
	• **RENISO SEZ 32**
	• **RENISO SEZ 55**
	• **RENISO SEZ 68**
	• **RENISO SEZ 80 F**
	• **RENISO SE 100/170/220**
		• BITZER BSE 32
		• CASTROL ICEMATIC SW22-32-46-68-80
		• SOLTEST 22-32-46-68-80
		• EMKARTE RL22H-32-46-68-80
		• MOBIL EAL ARCTIC 22-32-46-68-80
		• SHELL CLAVUS R22-32-46-68-80
		• SUNISO SL 22-32-46-68-80
		• TEXACO CAPELLO HFC 22-32-46-68-80
		• TOTAL PLANET ELF ACD
		  22-32-46-68-80
		• BITZER BSE 150 170
		• CASTROL ICEMATIC SW100-170-220
		• CPI SOLTEST 100-170-220
		• EMKARATE RL100 H-170-220
		• MOBIL EAL ARCTIC 100-170-220
		• SHELL CLAVUS R100-170-220
		• SUNISO SL 100-170-220
		• TOTAL PLANETELF ACD
		  100FY -150FY-220FY
			• Fully synthetic oil based on Polyol ester POE. Suitable for no ozone depleting FC/HFC refrigerants. RENISO TRITON SE/SEZ suitable for HFO and HFO/HFC refrigerants. Suitable with new refrigerants designed to replace R22 such as R422A/D and R417a	• BITZER
				• BOCK
				• COPELAND
				  (SEZ 32)
				• DANFOSS
				• FRIGOPOL
				• GRASSO
				  (SCREW SEZ
				  68)
				• MCQUAY
				  EUROPA
				• PRESTCOLD
				• ROTOCOLD
				• SABROE
				• SUTRAK
				• TRANE USA
				• ZANUSSI

	• **RENISO TRITON SEZ 320**	-	R22	-
	• **RENISO SEZ 35 SC**	-	HFC/FC	-

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals

SPECIAL POLYOLESTER (POE) OIL	• **RENISO C55 E**
	• **RENISO C85 E**
	• **RENISO C170 E**
		-	• SUBCRITICAL CO2
			• SUBCRITICAL/
			  TRANSCRITICAL
			  CO2
			• SUBCRITICAL CO2
			  (screw compressor)
				• BITZER
				• DANFOSS
				• GEA BOCK
				• GRASSO
				• LINDE CARRIER
				• OBRIST
				• YORK

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals
SPECIAL POLYALKALINE GLYCOL (PAG)	• **RENISO ACC**	-	• CO2 -AC CAR SYSTEMS	-
	• **RENISO ACC 68 PAG**	-	• CO2 -HEAT PUMPS/ CARS	-

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals

SPECIAL POLYALKALINE GLYCOL (PAG) FOR MOBILE AC SYSTEMS	• **RENISO PAG 46**
	• **RENISO PAG 100**
		-	• R134A,
			  HYDROCARBONS,
			  AMMONIA
				-

	• **RENISO PAG 1234**	-	• R1234YF, R134A MOBILE SYSTEMS	-
	• **RENISO ACC HV**	-	• CO2 MOBILE AC SYSTEMS	-

	FUCHS oil	Competitor equivalent	Refrigerants	Approvals

SPECIAL POE FOR MOBILE AC SYSTEMS – HYBRID AND ELECTRIC CARS	• **RENISO TRITON SEZ 75 AC**	-	• R1234YF, R134A,
			  ELECTRIC
			  COMPRESSORS
				-

INSTALL+

FUCHS

4 good reasons for using RENISO refrigeration oils

Performance comparison RENISO TRITON SEZ 80
versus standard polyol ester (POE) refrigeration oils.

1 **High thermo-chemical stability**
e.g. in Sealed Glass Tube Test
(ASHRAE 97-2007)

High stability

Standard POE
refrigeration oils

RENISO TRITON SEZ 80

3 **Low varnish / low sludge formation**
e.g. in FUCHS In-house test (evaluation of oil
sludge in beaker with bearing roller after
168h/135 °C)

No sludge

Standard POE
refrigeration oils

RENISO TRITON SEZ 80

2 **Very good miscibility**
with HFC/FC: e.g. in miscibility evaluation
(DIN 51514)

Good miscibility

Standard POE
refrigeration oils

RENISO TRITON SEZ 80

4 **Reliable wear protection**
e.g. in bearing wear testing (DIN 51819-3)

No wear

Standard POE
refrigeration oils

RENISO TRITON SEZ 80

DIVERSITECH INTERNATIONAL

Glaisdale Drive East | Nottingham NG8 4LY | United Kingdom

TOOLS

Quick-Engage Flare and Swage
1838947

RECOVERY MACHINES

BOSCH | **110/240V** | **A2L A1 A3**

BOSCH RG-4.0

Refrigerant recovery machine from Bosch. Externally certified for A1, A2L and A3 refrigerants with confirmation No. 2018/SX/PV/222

TOOLS+

- Recovers all commonly used CFC, HFC, HCFC Refrigerants
- Suitable for A2L Refrigerants such as R32 and R1234YF
- Suitable for A3 Refrigerants such as R290 and R600a
- Oil-less compressor suitable for liquid and vapor
- Fully automatic high & low pressure reset
- Available in 110V and 240V
- 1 year warranty

Technical Information	
High Pressure Cut Out	550psi / 38.5 bar
Compressor	Single Cylinder 1/2 HP, 1700-1750 rpm (110V) 1/2 HP, 1400-1450 rpm (240V)
Approvals	CE, UL, ARI and TUV
Weight	14.6kg
Voltage	240V 50-60Hz 110V 50-60Hz
Refrigerant Examples	R1234YF, R134A, R22, R32, R290, R401B, R401C, R402A, R402B, R404A, R406A, R407A, R407B, R407C, R407D, R408A, R409A, R410A, R411A, R411B, R412A, R417A, R422A, R422D, R427A, R500, R502, R507, R509, R600a

Recovery Rates (Max Capacity)		
PUSH / PULL	6.84	Kg/min
	410.5	Kg/hr
LIQUID	2.03	Kg/min
	122.1	Kg/hr
VAPOUR	0.17	Kg/min
	10.7	Kg/hr

Code	Description	Quantity
BOSCH RG-4.0A	Bosch Recovery Unit – 240V 50-60Hz	1
BOSCH RG-4.0B	Bosch Recovery Unit – 110V 50-60Hz	1

EXPLODED DIAGRAM

CODE	No	PRODUCT
-	1	Tube - Manifold to
		compressor inlet
-	2	Compressor
-	3	Start capacitor (only for 115 V)
-	4	Motor 230 V
-		Motor 115 V
-	5	Motor bracket 230 V
-		Motor bracket 115 V
-	6	LH enclosure
-	7	Knob - Main power switch
-	8	Pump bracket
-	9	Main power switch
-	10	Electrical fan 230 V
-		Electrical fan 115 V
-	11	Manifold assembly
-	A	Gauge - High pressure
-	B	Gauge - Low pressure
-		Circuit breaker 12 A, 115 V

CODE	No	PRODUCT
-	C	Switch - High pressure
-	D	Switch - Low pressure
-	12	Grill - gray
-	13	Knob - Ball valve (Red)
-	14	Knob - Ball valve (Blue)
-	15	Knob - Ball valve (Black)
-	16	HMI cover
-	17	Front Panel
-	18	Condenser
-	19	RH Enclosure
-	20	Tube- Manifold
		to compressor outlet
-	21	Interface - Motor and compressor
-	22	Coupler
-	23	Circuit breaker 8 A, 230 V
-		Circuit breaker 12 A, 115 V

BOSCH | PROMAX® | 110/240V | A2L
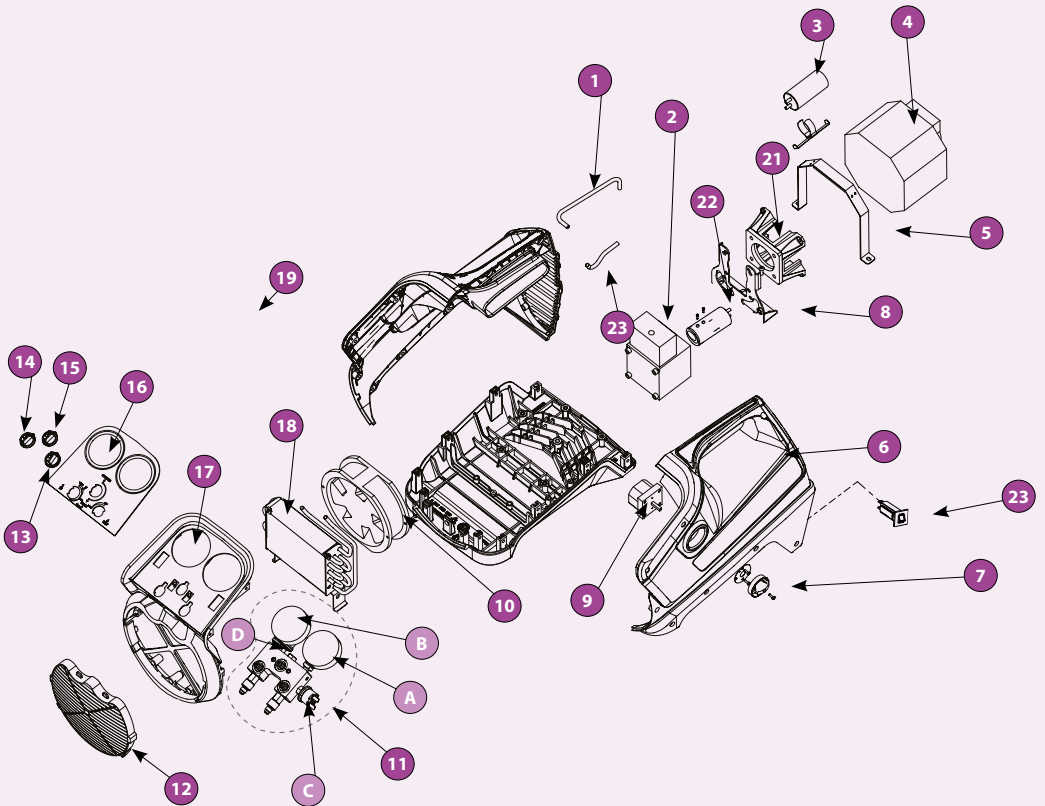
PROMAX RG 3000
Ultra Compact Refrigerant Recovery Machine from Promax

TOOLS+

- Ultra compact and lightweight
- Our smallest, lightest recovery machine
- Recovers all commonly used CFC, HFC, HCFC Refrigerants
- Suitable for A2L Refrigerants such as R32 and R1234YF
- Oil-less compressor suitable for liquid and vapour
- Available in 110V and 240V
- 1 year warranty

Technical Information	
High Pressure Cut Out	550psi / 38.5 bar
Compressor	Single Cylinder 1/3 HP, 1700-1750 rpm (110V) 1/3 HP, 1400-1450 rpm (240V)
Approvals	CE, UL, ARI and TUV
Weight	8kg
Voltage	240V 50Hz 110V 50Hz
Refrigerant Examples	R1234YF, R22, R32, R134A, R401B, R401C, R402A, R402B, R4040A, R406A, R407A, R407B, R407C, R407D, R408A, R409A, R410A, R411A, R411B, R412A, R417A, R422A, R422D, R427A, R500, R502, R507, R509 and others

Recovery Rates (Max Capacity)		
PUSH / PULL	3.8	Kg/min
	229.13	Kg/hr
LIQUID	0.97	Kg/min
	58.25	Kg/hr
VAPOUR	0.136	Kg/min
	8.18	Kg/hr

Code	Description	Quantity
RG 3000 E	Promax Ultra Compact Recovery Unit - 240V 50Hz	1
RG 3000 110V	Promax Ultra Compact Recovery Unit - 110V 50Hz	1

EXPLODED DIAGRAM

CODE	No	PRODUCT
-	1	RG3000 Condenser 105-201234-001
-	2	RG3000 Motor Clamp Left
-	3	RG3000 Motor Clamp Right
-	4	RG3000 110V Motor
-	4	RG3000 240V Motor
-	5	RG3000 Compressor
-	6	RG3000 Manifold Assy. Low Side
-	7	RG3000 Manifold Assy. High Side
-	8	RG3000 Power Switch

CODE	No	PRODUCT
-	9	RG3000 Power Receptacle RS
-	10	RG3000 Fuse Holder
-		Fuse, slow blow 8amp
-	11	RG3000 110V Capacitor Motor Start
-	11	RG3000 240V Capacitor, Motor Start
-	12	RG3000 Fan 240
-	12	RG3000 Fan 110
-	13	RG3000 Coupler

| BOSCH | PROMAX® | 110/240V | A2L |
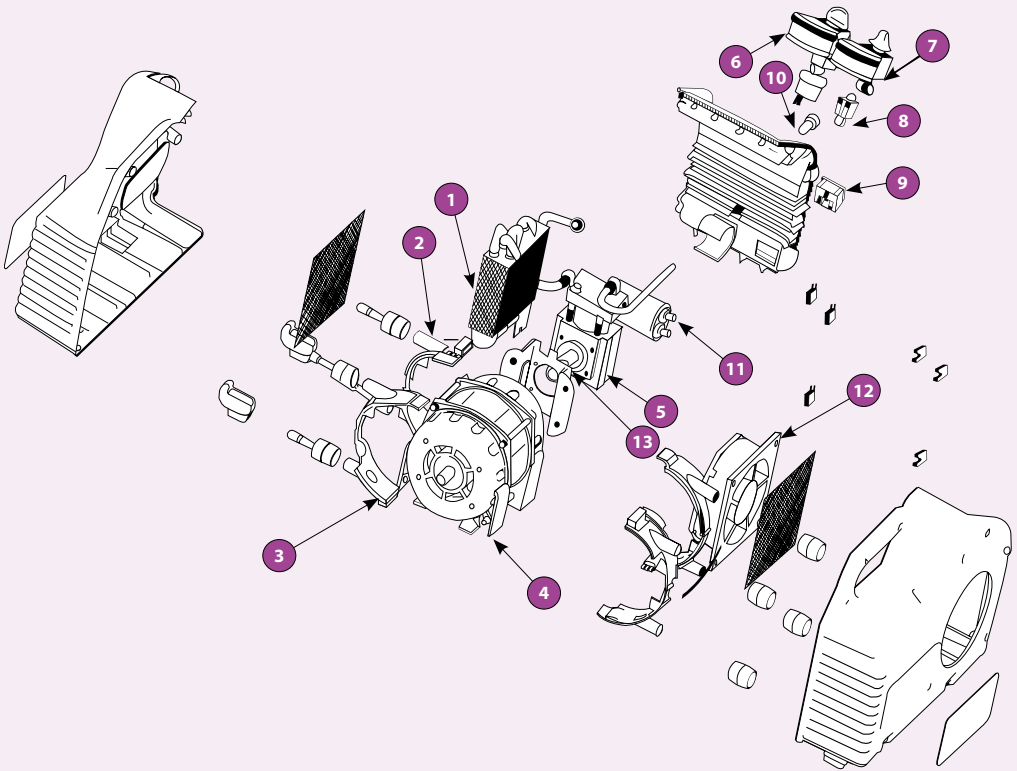
PROMAX Minimax
Compact refrigerant recovery machine from Promax

TOOLS+

- Minimum size, maximum performance
- Recovers all commonly used CFC, HFC, HCFC Refrigerants
- Suitable for A2L Refrigerants such as R32 and R1234YF
- Oil-less compressor suitable for liquid and vapour
- Manual high pressure reset switch
- Available in 110V and 240V
- 1 year warranty

Technical Information	
High Pressure Cut Out	550psi / 38.5 bar
Compressor	Single Cylinder 1/2 HP, 1700-1750 rpm (110V) 1/2 HP, 1400-1450 rpm (240V)
Approvals	CE, UL, ARI and TUV
Weight	11kg
Voltage	240V 50-60Hz 110V 50-60Hz
Refrigerant Examples	R1234YF, R22, R32, R134A, R401B, R401C, R402A, R402B, R4040A, R406A, R407A, R407B, R407C, R407D, R408A, R409A, R410A, R411A, R411B, R412A, R417A, R422A, R422D, R427A, R500, R502, R507, R509 and others

Recovery Rates (Max Capacity)		
PUSH / PULL	5.9	Kg/min
	354	Kg/hr
LIQUID	1.5	Kg/min
	90	Kg/hr
VAPOUR	0.15	Kg/min
	9	Kg/hr

Code	Description	Quantity
MINIMAX	Promax Minimax Compact Recovery Unit - 240V 50-60Hz	1
MINIMAX-E	Promax Minimax Compact Recovery Unit - 110V 50-60Hz	1

EXPLODED DIAGRAM

CODE	No	PRODUCT
-	1	Bell Housing
-	2	Compressor Bracket
-	3	Bracket - Motor
-	4	Case
-	5	Capacitor
-	6	Coupler
-	7	Compressor
-	8	Condenser
-	9	Fan 110V
-	9	Fan 240V
-	10	Fan Screen - outlet
-	10	Fan Screen - inlet
-	11	Flare Fitting 45°
-	12	Fuse, slow blow 8amp
-	13	Gauge - Input LP (Blue) 500psi
-	14	Gauge - Output HP (Red) 800psi
-	15	Gauge Lens (2)
-	16	HP Switch Automatic

CODE	No	PRODUCT
-	16	HP switch 240V
-	17	Inlet Hose 4"
-	18	Inlet Filter dryer (with hoses)
-	18	Inlet Filter dryer (without hoses)
-	19	Knob - Black
-	20	Knob - Blue
-	21	Knob - Red
-	22	Manifold
-		Manifold Valve Seal
-	23	Motor 115V/60Hz
-	23	Motor 230V/60Hz
-		Motor Clamp
-		Neoprene Ball 5/16" GRD 1 - manifold part
-	24	Power Cord 110V
-	24	Power Cord 240V
-		Rivnut 10-24
-	25	Switch -On/Off
-	26	Switch - Start

DiversiTech® INTERNATIONAL

| BOSCH | PROMAX® | 110/240V | A2L |

TOOLS+
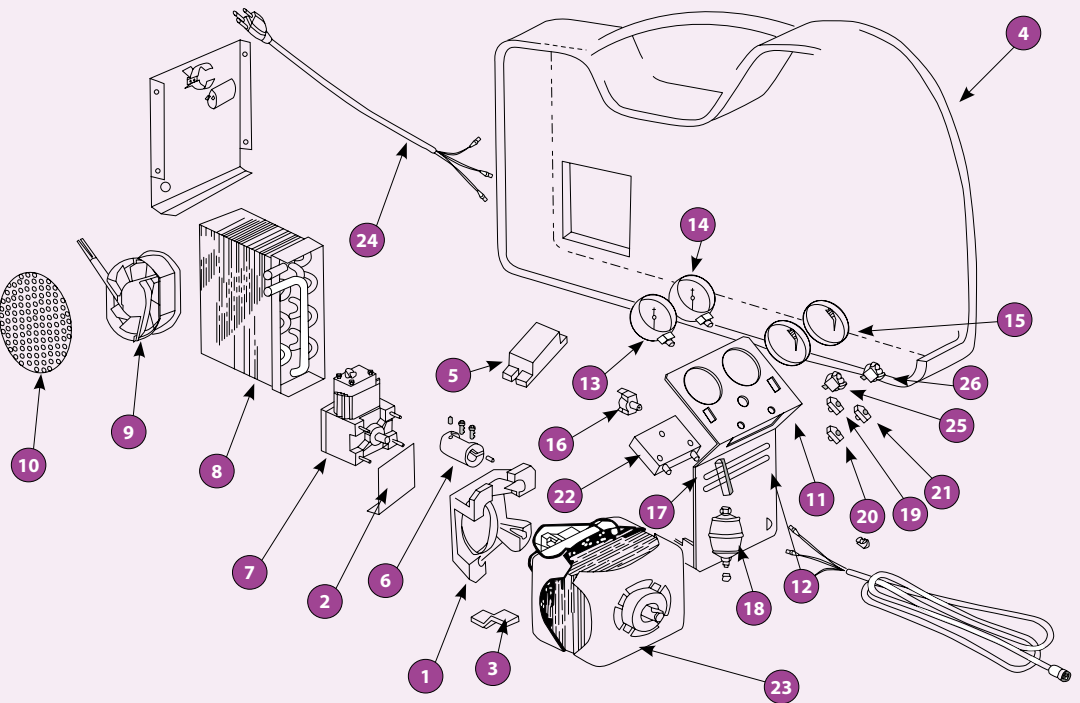
PROMAX RG 5410A
Refrigerant recovery machine from Promax

- Recovers all commonly used CFC, HFC, HCFC Refrigerants
- Suitable for A2L Refrigerants such as R32 and R1234YF
- Oil-less compressor suitable for liquid and vapour
- Manual high pressure reset switch
- Selectable low pressure switch
- Available in 110V and 240V
- 1 year warranty

Technical Information	
High Pressure Cut Out	550psi / 38.5 bar
Compressor	Single Cylinder 1/2 HP, 1700-1750 rpm (110V) 1/2 HP, 1400-1450 rpm (240V)
Approvals	CE, UL, ARI and TUV
Weight	13.5kg
Voltage	240V 50-60Hz 110V 50-60Hz
Refrigerant Examples	R1234YF, R22, R32, R134A, R401B, R401C, R402A, R402B, R4040A, R406A, R407A, R407B, R407C, R407D, R408A, R409A, R410A, R411A, R411B, R412A, R417A, R422A, R422D, R427A, R500, R502, R507, R509 and others

Recovery Rates (Max Capacity)		
PUSH / PULL	6.22	Kg/min
	373	Kg/hr
LIQUID	1.85	Kg/min
	111	Kg/hr
VAPOUR	0.16	Kg/min
	9.6	Kg/hr

Code	Description	Quantity
RG 5410A E240V	Promax Recovery Unit - 240V 50-60Hz	1
RG 5410A E	Promax Recovery Unit - 110V 50-60Hz	1

EXPLODED DIAGRAM

CODE	No	PRODUCT
-	1	Bell Housing
-	2	Capacitor
-	2	Capacitor [EXTREME]
-	3	Check Valve [EXTREME]
-	4	Condenser
-	5	Compressor CP1320
-	6	Compressor Bracket
-	7	Coupler
-	7	Coupler [EXTREME]
-	8	Fan Assembly 110V
-	8	Fan Assembly 240V
-	9	Fan Grill
-	10	Flare Cap 1/4"
-	11	Flare Fitting 45°
-	12	Fuse, slow blow 8amp
-	13	Fuse Holder
-	14	Gauge - Input LP (blue)
-	14	Gauge - Input LP (blue) [EXTREME] 500psi
-	15	Gauge - Output HP (red)
-	15	Gauge - Output HP (red) [EXTREME]
-	16	Gauge Lens (2)
-	17	HP Switch

CODE	No	PRODUCT
-	18	Inlet Filter dryer (with hose)
-	18	Inlet Filter dryer (without hose)
-	19	Inlet Hose 4"
-	20	Knob - Black
-	21	Knob - Blue
-	22	Knob - Red
-	23	Manifold
-		Manifold Valve Seal
-	24	Motor 110V
-	24	Motor 230V
-	24	Motor 110V [EXTREME]
-	24	Motor 230V [EXTREME]
-		Motor Clamp
-		Neoprene Ball 5/16"
		GRD 1 - manifold part
-	25	Male Kettle Lead 240V
-	25	Male Kettle Lead 110V
-		Rivnut 10-24
-	26	Switch - Start
-	27	Switch - On/Off
-	28	Switch - Vacuum Select
-	25	Vacuum Sensor

Comparison Charts

TOOLS+
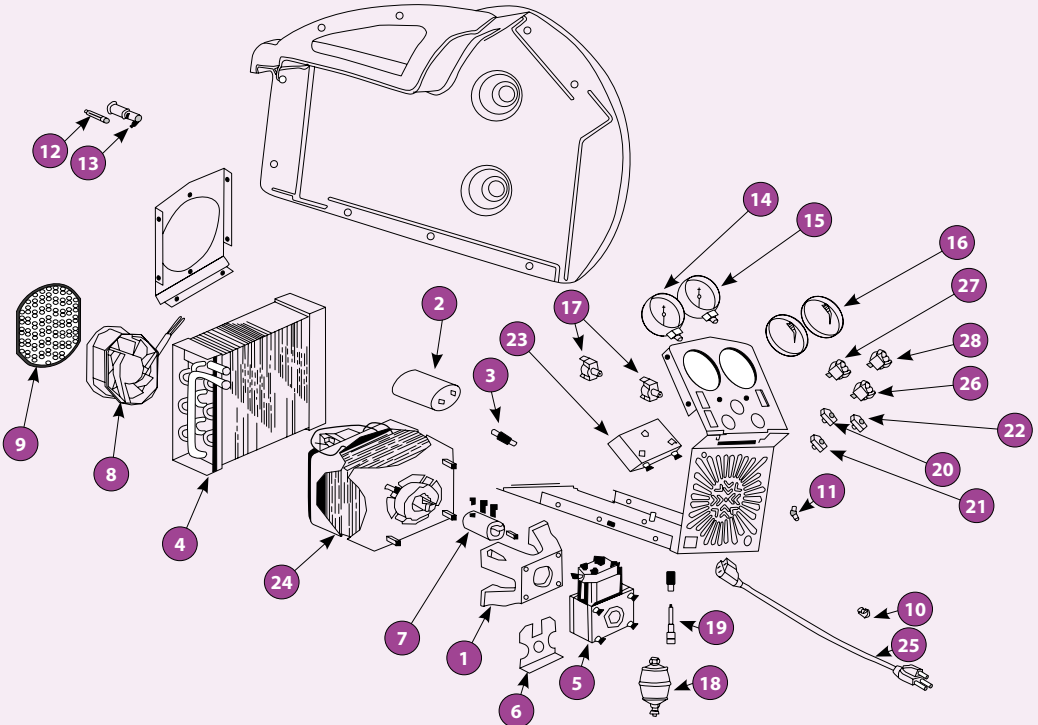
Technical Information	RG-4.0	RG 3000
Motor	1/2 HP / 360 Watt	1/3 HP / 240 Watt
Max. Working Pressure	38.5 Bar	38.5 Bar
No. of cylinders	1	1
Norm	EN 35421	EN 35421
Approvals	CE, UL, ARI and TÜV	CE, UL, ARI and TÜV
Filter/Dryer	Yes	Yes
HP Safety Switch	Yes	Yes
Dimensions	450 x 250 x 350 mm	310 x 235 x 175 mm
Weight	14.6 kg	8 kg

Technical Information	Minimax	RG 5410A
Motor	1/2 HP / 360 Watt	1/2 HP / 360 Watt
Max. Working Pressure	38.5 Bar	38.5 Bar
No. of cylinders	1	1
Norm	EN 35421	EN 35421
Approvals	CE, UL, ARI and TÜV	CE, UL, ARI and TÜV
Filter/Dryer	Yes	Yes
HP Safety Switch	Yes	Yes
Dimensions	406 x 250 x 222 mm	485 x 325 x 245 mm
Weight	11 kg	13.5 kg

Code	Description	Quantity
BOSCH RG-4.0A	Bosch Recovery Unit - 240 V 50-60Hz	1
BOSCH RG-4.0B	Bosch Recovery Unit - 110 V 50-60Hz	1
RG 3000 E230V	Promax Ultra Compact Recovery Unit - 240V 50Hz only	1
RG 3000 E	Promax Ultra Compact Recovery Unit - 110V 50Hz only	1
MINIMAX	Promax Minimax Compact Recovery Unit - 240V 50-60Hz	1
MINIMAX E	Promax Minimax Compact Recovery Unit - 110V 50-60Hz	1
RG 5410A E240V	Promax Recovery Unit - 240V 50-60Hz	1
RG 5410A E	Promax Recovery Unit - 110V 50-60Hz	1

LEAK
DETECTION

BOSCH | BATTERY | A2L/A3

BOSCH CS LD 1.0
Leak detector

TOOLS+

- One sensor, one tool
- Detects Halogenated CFC, HCFC, HFC, HFO compounds, HC refrigerants, Tracer Gas (95 %N2/5 %H2 mixture), ammonia, butane and propane
- Meets or exceeds EN14624 performance standards
- Ultimate Sensitivity of less than 1 g/yr
- Electronic sensor lasts > 5 years
- Large 61 mm backlit graphic LCD
- Audible alarm with Mute and Visual Leak Size Indicator
- Leak tracing mode to pinpoint hard to find leaks
- Rubber keypad provides positive actuation and tactile feedback
- Ergonomic design with TPU overmold and ambidextrous operation
- Includes carrying case, spare filters and battery charger

Technical information	Bosch CS LD 1.0
Dimensions (L x W x H)	218 x 83 x 51 mm
Probe Length	413 mm
Weight	452 grams
Sensor Life	Approximately 5 years under normal usage
Warm Up Time	Normally 20 - 30 seconds, 45 seconds Max.
Ultimate Sensitivity	< 1 g/yr
Power Supply	Li-Ion rechargeable cell
Battery Life (per charge)	8 hours
Recharge time	≤ 3 hours
Operating Temperature & Humidity	-20° C to 50° C; 95 % RH max.
IP Rating	IP IP51

Code	Description	Quantity
BOSCH CS LD 1.0	Leak Detector	1
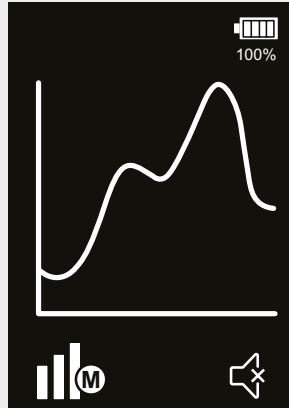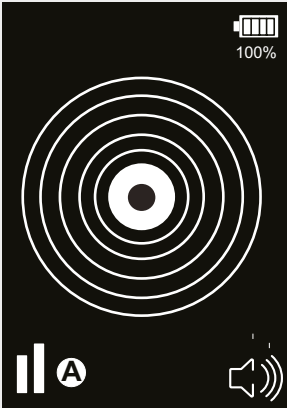
EN 14624:2020 Test Results (as required by Sec 9.1)	R-134A	R-1234yf	R-290
Static lower detection limit (g/a)[1]	1 g/a	1 g/a	0.5 g/a
Dynamic lower detection limit (g/a)[1]	1 g/a	1 g/a	0.5 g/a
Dynamic lower detection limit in a contaminated environment (g/a)[1]	12 g/a	10 g/a	4 g/a
Response time s)[2]	0.5 sec	0.5 sec	0.5 sec
Recovery time (s)[2]	14 sec	10 sec	6 sec

BOSCH | TIF | **BATTERY** | **A2L**

TOOLS+

TIF XP-1A
Electronic Leak Detector from TIF

The TIF XP-1A features a mechanical pump which ensures that moving air from the immediate environment is continuously flowing over the sensing tip for it to sample.

The sensing tip is monitored by the microprocessor 4000 times a second and can detect leaks down to 3 grams of refrigerant per year. The kit comes complete with 2 sensors, (each with a 20 hour life), batteries, a hard carry case and a two year warranty.

- Detects all halogenated refrigerants
- Variable frequency audible alarm
- LED lights to indicate a leak
- Constant power indication
- Suitable fro A2L Refrigerants such as R32 and R1234YF
- Mute Button
- 2 year warranty

Technical Information	
Ultimate Sensitivity	3 gr/yr
Power Supply	2 x 'C' Batteries
Battery Life	Approx. 30 hours
Sensor Life	20 hours
Operating Temperature	-20°C to 52°C

Code	Description	Quantity
TIF-XP-1A	Automatic Halogen Refrigerant Leak Detector	1
TIF-XP-2	Maintenance Kit (3 tips with protectors)	1

BOSCH | **TIF** | **BATTERY** | **A2L**

TOOLS+

TIF ZX-1A
Electronic Leak Detector from TIF

This is the most sensitive and most advanced completely digital hand held leak detector available today. The ZX-1A eliminates false alarms from moisture, cleaners and solvents and allows you to home into even the smallest refrigerant leak without misleading feedback. Reliability is a key feature of the ZX-1A – the unit is equipped with a sensor failure indicator, a battery test function giving true voltage indication and a low battery indicator.

- Detects ALL halogenated refrigerants
- Suitable for A2L refrigerants such as R32 and R1234YF
- Wall charger included
- Rechargeable
- Mute Button
- Patented heated pentode sensor
- Highest sensitivity in the market less than 3g/year
- True mechanical pump provides instant response
- Tri-colour leak size indication display
- 2 year warranty

Technical Information	
Ultimate Sensitivity	Less than 1g/year for all refrigerants.
Power Supply	Ni-MH Battery Pack
Battery Life	5 to 6 hours
Sensor Life	100 - 150 hours
Operating Temperature	0 to 50°C (32 to 122°F)

Code	Description	Quantity
TIF ZX-1A	Heated Pentode™ Refrigerant Leak Detector	1
TIF ZX-2	Heated Pentode™ Sensor for ZX-1A	1
TIF ZX-14	Filter & Tip for ZX-1A	1
TIF ZX-20	Nickle-Metal Hydride (NiMH) Battery Pack for ZX-1A	1

BOSCH | TIF | BATTERY | A2L

TOOLS+

TIF IR-1A
Infrared Sensor Leak Detector from TIF

The TIF IR-1A uses infrared optics to create a refrigerant leak detector that combines sensitivity, speed, battery life, portability and ease of use. This unit will detect leaks as small as 3 g/yr, and exceeds EN 14624. The TIF IR-1A comes with a wall charger for its compact lithium-ion battery, which can power the leak detector for up to eight hours of continuous operation before needing to recharge.

- Advanced infrared sensor designed to last a minimum of 10 years
- Three sensitivity levels down to 3gr/yr
- Automatically recallibrates in highly contaminated areas to help pinpoint the exact location of the leak
- Suitable for A2L refrigerants such as R32 and R1234YF
- Won't trigger with oil or moisture
- Senses CFC, HFC and HCFC blend refrigerants
- 8-hour lithium Ion battery lasts all day long and beyond
- Visual alert make it easy to find leaks in noisy environments
- Audible alert with mute button
- Durable carrying case let's you easily store the leak detector and accessories
- Certified to SAE J2913 / SAE J2791 / E-35422 / EN 14624
- 1 year warranty

Technical Information	
Ultimate Sensitivity	less than 3gr/yr
Power Supply	3.7v Lithium-Ion rechargeable battery
Battery Life	8 hours
Operating Temperature	0 to 50°C (32 to 122°F)

Code	Description	Quantity
TIF IR-1A	Infrared Sensor Leak Detector	1
TIF IR-8	Maintenance Kit 5 x Filters and 3 x O rings	1

| BOSCH | TIF | BATTERY | A3 |

TIF 8900-E
Combustable Gas Leak Detector from TIF

TOOLS+

The TIF 8900 combustible gas leak detector pinpoints the location of combustible gas leaks as low as 1 ppm. The TIF 8900 can be used to leak check refrigeration systems that use hydrocarbon combustible gases. This battery-powered unit features a flexible 16-inch probe and a Geiger counter-style ticking signal that increases in frequency as the source of the combustible gas is detected. The TIF 8900 is supplied with a carrying case, owner's manual, rechargeable batteries & charger.

- For flammable gasses like Propane, Iso-Butane and Ammonia
- Suitable for Tracer Gas (95% Nitrogen and 5% Hydrogen)
- Suitable for A3 refrigerants such as R290 and R600a
- Sensitivity as low as 1 ppm in: <500 ppm
- Long-life solid state sensor
- 1 year warranty

Technical Information	
Ultimate Sensitivity	As low as 1 ppm in: <500 ppm
Power Supply	2 x 2.4v rechargeable batteries
Battery Life	4 hours
Sensor Life	up to 150 hours
Operating Temperature	0°C to 52°C

Code	Description	Quantity
TIF 8900-E	Combustible Gas Leak Detector	1
TIF 8806-A	Rechargeable batteries (2 each)	1
TIF 8806-B	Battery Charger 240V	1
TIF 8801	Replacement Sensor	1

BOSCH | *TIF* | **BATTERY** | **CO2**

TOOLS+
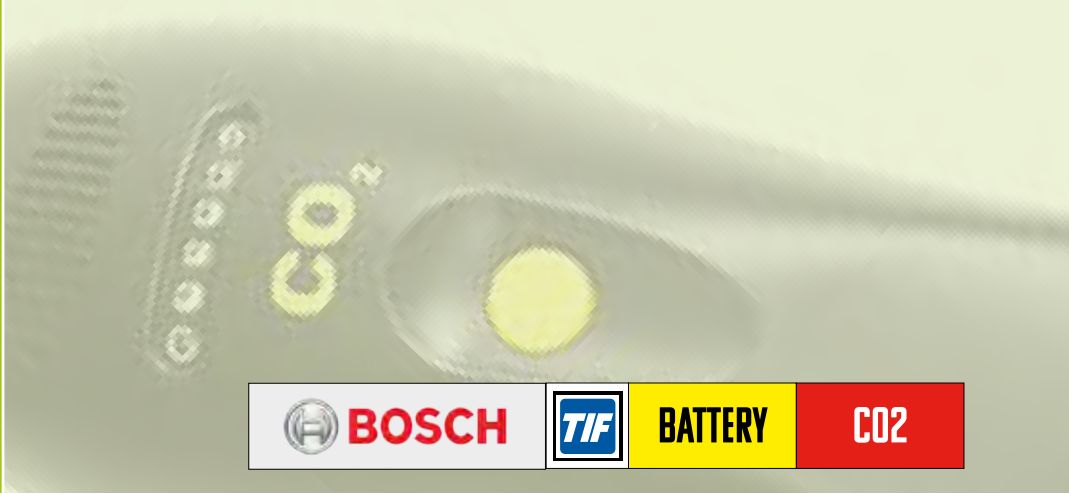
ATP-C1
Infrared Sensor CO₂ Refrigerant Leak Detector

The ATP-C1 Carbon Dioxide Gas Leak Detector is the most technologically advanced of its kind. The fully automatic ATP-C1's low power requirements, small size and high sensitivity combine to create a tool which is easy to handle and ultra effective at locating even the most difficult-to-find leaks. The ATP-C1's long life sensor will detect concentrations of carbon dioxide gas as low as 400 ppm over ambient. False alarms are eliminated due to its high selectivity. The ATP-C1 is excellent for servicing carbon dioxide refrigeration systems or any general purpose leak detection application where compressed carbon dioxide can be used as the test gas.

- Simple, one button operation
- Sensitivity: <400 ppm
- Long life IR sensor
- Special design for CO₂
- 4 x 1.5V - AA Alkaline Batteries (6V DC)
- Low battery indicator
- Reset time, 1 second (auto reset)
- 1 year warranty

Technical Information	
Ultimate Sensitivity	< 400 ppm
Power Supply	4 x 1,5V AA alkaline batteries
Battery Life	10 hours
Sensor Life	> 2 years - maintenance free
Operating Temperature	0° to 50°C

Code	Description	Quantity
ATP-C1	Infrared Sensor CO₂ Refrigerant Leak Detector	1
ATP-C2	Replacement Sensor	1

REFRIGERANT WEIGHING SCALES

BOSCH | TIF | BATTERY

TOOLS+

TIF-9000S
Dual Range Compact Refrigerant Scale 50kg/2g & 100kg/4g

- Dual range 100kg or 50kg
- Dual resolution, 4 or 2 grams
- Platform mounting connection for small cylinders
- Auto shut-off feature saves battery life when the unit is not in use
- Extra large display with built-in backlight
- Integrated carrying handle
- Comes complete with a shoulder bag
- Optional operating modes
- Overload protection
- 1 year warranty

CALIBRATION CERTIFICATION SERVICE AVAILABLE ON ALL SCALES

Technical Information	
Capacity	50kg or 100kg selection table
Accuracy	± 0.5% of reading ± 1 digit
Resolution	2 or 4 gram selectable
Platform Dimensions	250mm (W) 250mm (L)
Weight	4.2kg
Battery Type	1 x 9V alkaline battery
Battery Life	± 20 hours
Operating Temperature	-10°C to 49°C
Case	No
Bag	Yes

Code	Description	Quantity
TIF-9000S	TIF Dual Range Compact Refrigerant Scale	1

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BOSCH | TIF | BATTERY

TIF-9030E
Compact Refrigerant Scale up to 100kg

TOOLS+

- Compact design
- Extremely durable
- Range up to 100kg
- Display weight in kg, oz, lbs
- Resolution 10g
- Easy to use:
  On/Off - Units - Zero buttons
- 9V battery operated
- Overload protected
- Inclusive Shoulder bag
- CE approved
- 1 year warranty

CALIBRATION CERTIFICATION SERVICE AVAILABLE ON ALL SCALES

Technical Information	
Capacity	up to 100kg
Accuracy	± 0.5% of reading ± 1 digit
Resolution	10 gram
Platform Dimensions	230mm (W) 230mm (L)
Weight	2.4kg
Battery Type	1 x 9V alkaline battery
Battery Life	± 20 hours
Operating Temperature	-10°C to 49°C
Case	No
Bag	Yes

Code	Description	Quantity
TIF-9030E	TIF Compact Refrigerant Scale up to 100 kg	1

BOSCH | TIF | **BATTERY**

TOOLS+

TIF-9060S
Heavy Duty Aluminium Scale up to 150kg

- Maximum capacity 150kg
- Extremely large platform
- 6 digit LCD readout
- Easy to handle
- Three units to select from kg, lbs, lbs/ozs
- Resolution 10g, 0,02 lbs and 0,5 oz
- Low Battery indicator (<7.5 V DC)
- Platform 270 x 260 mm
- Overload protected
- Includes nylon carrying case
- CE approved
- 1 year warranty

CALIBRATION CERTIFICATION SERVICE AVAILABLE ON ALL SCALES

Technical Information	
Capacity	150kg
Accuracy	± 0.5% of reading ± 1 digit
Resolution	2 or 4 gram
Platform Dimensions	260mm (W) 270mm (L)
Weight	5.3kg
Battery Type	1 x 9V alkaline battery
Battery Life	± 20 hours
Operating Temperature	-10°C to 49°C
Case	No
Bag	Yes

Code	Description	Quantity
TIF-9000S	TIF Heavy Duty Aluminium Scale up to 150 kg	1

RENISO TRITON SE/SEZ
Synthetic refrigeration oils based on poly esters (POE) for HFC/FC refrigerants

RENISO C 85 E
Synthetic refrigeration oil for CO_2 compressors

RENISO PAG 100
Special polyalkylene glycols (PAG) for mobile AC systems

FUCHS RANGE
PAGE 130

BOSCH | TIF | BATTERY

TIF-9055
Programmable Charging / Recovery Scale up to 100kg

TOOLS+

- 100kg (220 lbs) capacity
- Allows automatic Charging or Recovery operations
- Colour-coded keypad controls
- Three display modes – kg, lbs/oz, Decimal Pounds
- Very High Resolution – 4g / 0.2 oz / 0.010 lbs
- Can be used with all refrigerants, including (R410A)
- Advanced Charge and Recovery Modes – uses tare weight & Max. capacity of cylinder to calculate maximum charge/recovery available
- Removable platform and control box with prop stand/hanging hook
- Compact Design – completely portable, battery powered
- Low battery indicators
- 1 year warranty

Technical Information	
Capacity	up to 100kg
Accuracy	± 0.5% of reading ± 1 digit
Resolution	4 gram
Dimensions	230mm (W) 230mm (L)
Weight	4.0kg
Battery Type	1 x 9V alkaline battery and 4 x 1.5V AA batteries
Battery Life	± 30 hours
Operating Temperature	-10°C to 45°C
Case	Yes
Bag	No

Code	Description	Quantity
TIF-9055	TIF Programmable Charging / Recovery Scale up to 100 kg	1

BOSCH | *TIF* | BATTERY

TIF-9010A
"Slimline" Refrigerant Scale up to 50kg

TOOLS+

- Capacity range up to 50kg / 110 Pound capacity
- Three display modes – kg, lbs/oz, Decimal Pounds
- Very High Resolution 2g / 0.1 oz / 0.005 lbs at 50kg
- Extreme Accuracy
- Proven technology
- Auto Zero
- Removable platform and control box with prop stand/hanging hook
- Compact design, completely portable
- Overload protected
- 2 year warranty

Technical Information	
Capacity	up to 50kg
Accuracy	± 0.5% of reading ± 1 digit
Resolution	2 gram
Dimensions	230mm (W) 230mm (L)
Weight	2.9kg
Battery Type	1 x 9V alkaline battery
Battery Life	± 20 hours
Operating Temperature	-10°C to 49°C
Case	Yes
Bag	No

Code	Description	Quantity
TIF-9010A	TIF "Slimline" Refrigerant Scale up to 50kg	1

Comparison Charts

TOOLS+

Technical Information	TIF-9000S	TIF-9030E	TIF-9060S
Capacity	50kg or 100kg	Up to 100kg	Up to 150kg
Accuracy	±0,5 % of the reading ± 1 digit	±0,5 % of the reading ± 1 digit	±0,5 % of the reading ± 1 digit
Resolution	2 or 4 grams selectable	10 grams	10 grams
Dimensions	250mm (H) x 250mm (W)	230mm (H) x 230mm (W)	270mm (H) x 260mm (W)
Weight	4.2kg	2.4kg	5.3kg
Battery Type	1 x 9V Alkaline Battery	1 x 9V Alkaline Battery	1 x 9V Alkaline Battery
Battery Life	± 20 hours	± 20 hours	± 20 hours
Operating Temperature	-10°C to 49°C	-10°C to 49°C	-10°C to 50°C
Case	No	No	No
Bag	Yes	Yes	Yes

Technical Information	TIF-9010A	TIF-9055
Capacity	Up to 50kg	Up to 100kg
Accuracy	±0,5 % of the reading ± 1 digit	±0,5 % of the reading ± 1 digit
Resolution	2 grams	4 grams
Dimensions	230mm (H) x 230mm (W)	230mm (H) x 230mm (W)
Weight	2.9kg	4kg
Battery Type	1 x 9V Alkaline Battery	4 x 1.5V AA and 1 x 9V Battery
Battery Life	± 20 hours	± 30 hours
Operating Temperature	-10°C to 49°C	-10°C to 45°C
Case	Yes	Yes
Bag	No	No

Code	Description	Quantity
TIF-9000S	TIF Dual Range Compact Refrigerant Scale - with shoulder bag	1
TIF-9030E	TIF Compact Refrigerant Scale up to 100kg - with shoulder bag	1
TIF-9060S	TIF Heavy Duty Aluminium Scale up to 150kg - with shoulder bag	1
TIF-9010A	TIF "Slimline" Refrigerant Scale up to 50kg - with carry case	1
TIF-9055	TIF Programmable Charging / Recovery Scale up to 100kg - with carry case	1

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VACUUM PUMPS

BOSCH | **ROBINAIR** | **2-STAGE** | **PREMIUM**

RA-15401 / 15601 / 15121A
Premium High-Quality Cooltech Vacuum Pumps

TOOLS+

Robinair Cooltech are the industry's most efficient, reliable and dependable vacuum pumps. Lightweight and durable, the high-torque design of the motor allows for easy start-up and efficient operation. Cooltech pumps also feature the patented Iso-valve, which isolates the pump from the system with just a quarter-turn. All Cooltech pumps are built from die-cast aluminium, making them lightweight but durable. An integral check valve is also a standard feature, which prevents oil from being sucked into the system if a power loss occurs.

- Two Stage Design
- Offset Rotary Vanes
- Gas Ballast
- Iso-Valve
- Dual Voltage
- 1 year warranty

Technical Information	RA-15401	RA-15601	RA-15121A
Capacity	4 CFM 93 l/min	6 CFM 142 l/min	10 CFM 236 l/min
Ultimate Vacuum Level	20 Micron (2.67 Pa)	20 Micron (2.67 Pa)	20 Micron (2.67 Pa)
Motor	244 Watt	366 Watt	366 Watt
Voltage	110V / 240V (50-60Hz)	110V / 240V (50/60Hz)	110V / 240V (50/60Hz)
Gas Ballast	Yes	Yes	Yes
Oil Capacity	445ml	445ml	488ml
Dimensions (HxWxL)	247x143x420mm	247x143x 420mm	272x143x445mm
Inlet Connection	1/4" /1/2"/3/8" MFL	1/4" /1/2"/3/8" MFL	1/4" /1/2"/3/8" MFL
Weight	12kg	12kg	17kg
Number of Stages	2	2	2

Code	Description	Quantity
RA-15401	Premium Robinair Cooltech Vacuum Pump – 4 CFM	1
RA-15601	Premium Robinair Cooltech Vacuum Pump – 6 CFM	1
RA-15121A	Premium Robinair Cooltech Vacuum Pump – 10 CFM	1

BOSCH · ROBINAIR · 2-STAGE · VACUMASTER

RA-15301A-E / 15501A-E / 15801A-E
VacuMaster Vacuum Pumps

This range of pumps comes with a sure-grip handle (a one-piece, moulded handle) which makes it easy to carry to site. The handle also stays cool to the touch duing operation. The two-stage rotary vane design means the pump is powerful, quiet, has a high vacuum capacity. Gas ballast allows a precise amount of atmospheric air to be introduced into the pump, preventing condensation of moisture vapour - which helps to maintain the purity of the pump oil.

- Compact & lightweight
- Quiet operation
- 2 stage rotary vane design
- Easy cold start with gas ballast
- Dual Voltage
- 1 year warranty

Technical Information	RA-15301A-E	RA-15501A-E	RA-15801A-E
Capacity	3 CFM 84 l/min	5 CFM 128 l/min	8 CFM 226 l/min
Ultimate Vacuum Level	15 Micron (2 Pa)	15 Micron (2 Pa)	15 Micron (2 Pa)
Motor	450 Watt	500 Watt	650 Watt
Voltage	110V / 240V (50/60Hz)	110V / 240V (50/60Hz)	110V / 240V (50/60Hz)
Gas Ballast	Yes	Yes	Yes
Oil Capacity	450ml	500ml	700ml
Dimensions (HxWxL)	335x140x255mm	335x140x255mm	376x157x270mm
Inlet Connection	1/4"/3/8" SAE MFL	1/4"/3/8" SAE MFL	1/4"/3/8" SAE MFL
Weight	9.5kg	10.2kg	13.9kg
Number of Stages	2	2	2

Code	Description	Quantity
RA-15301A-E	VacuMaster Robinair Vacuum Pump – 3 CFM	1
RA-15501A-E	VacuMaster Robinair Vacuum Pump – 5 CFM	1
RA-15801A-E	VacuMaster Robinair Vacuum Pump – 8 CFM	1

BOSCH | **ROBINAIR** | **240V** | **A2L**

Robinair VacuMaster
A2, A2L & NH₃ Vacuum Pump

TOOLS+

This pump comes with a sure-grip handle (a one-piece, moulded handle) which makes it easy to carry to site. The handle also stays cool to the touch duing operation. The two-stage rotary vane design means the pump is powerful, quiet, has a high vacuum capacity. Gas ballast allows a precise amount of atmospheric air to be introduced into the pump, preventing condensation of moisture vapour - which helps to maintain the purity of the pump oil.

• For all common refrigerants
• For class A2L refrigerants
• For Ammonia (NH$_3$)
• Spark free electronic motor cut-out switch
• Spark free electronic On/Off switch
• 240V / 50Hz only
• 1 year warranty

Technical Information	RA-15501A-E-A2L
Capacity	5 CFM 128 l/min
Ultimate Vacuum Level	15 Micron (2 Pa)
Motor	500 Watt
Voltage	240V / 50Hz only
Gas Ballast	Yes
Oil Capacity	500ml
Dimensions (HxWxL)	340x150x270mm
Inlet Connection	Nickel Plated Steel 1/4"/3/8" SAE MFL
Weight	10.2kg
Number of Stages	2

Code	Description	Quantity
RA-15501A-E-A2L	VacuMaster Robinair Vacuum Pump - for A2, A2L and Ammonia - 5CFM	1

DiversiTech INTERNATIONAL Glaisdale Drive East I Nottingham NG8 4LY I United Kingdom

BATTERY DIGITAL

SUPCO RA-VG-64A
Digital Vacuum Gauge

TOOLS+

A durable self-contained battery powered vacuum gauge with LCD visual screen. Allows reading from 0 - 12,000 Microns. The unique design of the RA-VG-64A allows in-line connection through the system.

- Easy to use
- LCD visual screen
- Convenient Built-In magnetic hanger
- Sensor cleaning possible

Technical Information	
Dimensions	135x75x40mm
Connections	1/4" MFL
Power Supply	9V Battery
Sensor Type	Thermistor
Response Time	0.5 seconds
Units	Micron, psi, inHg, Millibar, Pascal, Torr, Millitorr
Battery Life	Approx. 30 Hours
Automatic Shut-off	>10 Minutes – 12,000 Microns
Resolution	0-200 : 1 Micron 201-500 : 5 Microns 501-1000 : 10 Microns 1001-2000 : 50 Microns 2001-5000 : 250 Microns 5001-8000 : 500 Microns 8001-12000 : 1000 Microns
Accuracy	± 10 % of reading
Maximum Pressure	20 bar / 300 psi
Operating Temperature	2°C to 52°C

Code	Description	Quantity
RA-VG-64-A	Digital LCD Display Vacuum Gauge	1

DIVERSITECH INTERNATIONAL

BOSCH | **ROBINAIR** | **PREMIUM**

Robinair Premium Vacuum Pump Oil
ROBINAIR Premium High Vacuum Pump Oil

TOOLS+

- Mineral oil
- Chemically engineered to maintain maximum viscosity at high running temperatures and to improve cold weather starts
- Thermal stability − resists break-down due to heat
- Lower moisture content − due to special packaging and handling procedures
- Performance of your pump depends largely on the quality and purity of the vacuum pump oil that you use

Code	Description	Quantity
RA-13119	Premium High Vacuum Pump Oil, 0.475 Litres (16oz)	12
RA-13203	Premium High Vacuum Pump Oil, 0.95 Litres (32oz)	12
RA-13204	Premium High Vacuum Pump Oil, 3.8 Litres (128.5oz)	4

DIVERSITECH INTERNATIONAL Glaisdale Drive East | Nottingham NG8 4LY | United Kingdom

BOSCH   ROBINAIR

Comparison Charts
ROBINAIR Cooltech / VacuMaster

TOOLS+

Technical Information	RA-15401	RA-15601	RA-15121A
Capacity	4 CFM 93 l/min	6 CFM 142 l/min	10 CFM 236 l/min
Ultimate Vacuum Level	20 Micron (2.67 Pa)	20 Micron (2.67 Pa)	20 Micron (2.67 Pa)
Motor	244 Watt	366 Watt	366 Watt
Voltage	240V / 110V (50-60Hz)	240V / 110V (50-60Hz)	240V / 110V (50-60Hz)
Gas Ballast	Yes	Yes	Yes
Oil Capacity	445ml	445ml	488ml
Dimensions (HxWxL)	247x143x420mm	247x143x420mm	272x143x445mm
Inlet Connection	1/4" /1/2"/3/8" MFL	1/4" /1/2"/3/8" MFL	1/4" /1/2"/3/8" MFL
Weight	12kg	12kg	17kg

Technical Information	RA-15301A-E	RA-15501A-E	RA-15801A-E
Capacity	3 CFM 84 l/min	5 CFM 128 l/min	8 CFM 226 l/min
Ultimate Vacuum Level	15 Micron (2 Pa)	15 Micron (2 Pa)	15 Micron (2 Pa)
Motor	450 Watt	500 Watt	650 Watt
Voltage	240V / 110V (50-60Hz)	240V / 110V (50-60Hz)	240V / 110V (50-60Hz)
Gas Ballast	Yes	Yes	Yes
Oil Capacity	450ml	500ml	700ml
Dimensions (HxWxL)	335x140x255mm	335x140x255mm	376x157x270mm
Inlet Connection	1/4"/3/8" SAE MFL	1/4"/3/8" SAE MFL	1/4"/3/8" SAE MFL
Weight	9.5kg	10.2kg	13.9kg

Technical Information	RA-15501A-E-A2L
Capacity	5 CFM 128 l/min
Ultimate Vacuum Level	15 Micron (2 Pa)
Motor	500 Watt
Voltage	240V / 50Hz only
Gas Ballast	Yes
Oil Capacity	500ml
Dimensions (HxWxL)	340x150x270mm
Inlet Connection	Nickel Plated Steel 1/4"/3/8" SAE MFL
Weight	10.2kg

HAND TOOLS

| BOSCH | ROBINAIR | HYDRAULIC | SET |

Robinair RA-EXP-SET
Hydraulic Tube Expander Set

TOOLS+

The RA-EXP-SET (Tube Expander Set) couples hydraulic pressure with a lightweight tool to create a perfect and effortless expansion of copper, aluminium and brass pipes - using only a few pumps to the lever.

- 1/4 to 1-1/8 expander heads included in the kit
- Single-handed operation
- Laser-engraved expander heads are easy to identify and attach
- Compact design permits working in hard to access areas
- Expander heads for metric and imperial
- De-burring tool included in the kit
- Angled and ergonomic design
- 1 year warranty

Code	Description	Page No
RA-EXP-SET	Robinair Hydraulic Pipe Expander Set with 1/4" to 1-1/8" Expander Heads	1
RA-EXP	Robinair Hydraulic Pipe Expander	1
RA-EXP-C-D	Robinair Hydraulic Pipe Expander with Carry Case	1

Code	Description	Page No
RA-EXP-1/4	Expander Head 1/4"	1
RA-EXP-3/8	Expander Head 3/8"	1
RA-EXP-1/2	Expander Head 1/2"	1
RA-EXP-5/8	Expander Head 5/8"	1
RA-EXP-3/4	Expander Head 3/4"	1
RA-EXP-7/8	Expander Head 7/8"	1
RA-EXP-1-1/8	Expander Head 1 1/8"	1
ADDITIONAL HEADS (NOT INCLUDED IN THE SET)		
RA-EXP-1-3/8	Expander Head 1-3/8"	1
RA-EXP-1-5/8	Expander Head 1-5/8"	1
RA-EXP-DBT	De-burring tool	1

FLARING AND SWAGING

These flaring and swaging tools are designed for most tubing diameters, and they allow you to connect tubes without the need for extra fittings (swage), and preserves the copper malleability (flare) thus preventing cracks and leaks.

TOOLS+

HEAT BY FRICTION | AVOID CRACKS AND LEAKS | 10X FASTER

FITS ANY DRILL | 410A COMPATIBLE | HVAC READY

SPIN TOOLS

NEW
EVOLUTION IN FLARING & SWAGING FOR THE HVAC MARKET

Code	Description
FLARING TOOL SETS	
F4000	1/4, 3/8, 1/2, 5/8
F5000	1/4, 3/8, 1/2, 5/8, 3/4
F6000	1/4, 3/8, 1/2, 5/8, 3/4, 7/8
SWAGING TOOL SETS	
S4000	1/4, 3/8, 1/2, 5/8
S5000	1/4, 3/8, 1/2, 5/8, 3/4
S6000	1/4, 3/8, 1/2, 5/8, 3/4, 7/8
P3000	PLUMBING 1/2, 3/4, 1"
FLARING HEADS, INCHES	
F1014	1/4"
F1516	5/16"
F1038	3/8"
F1012	1/2"
F1058	5/8"
F1034	3/4"
F1078	7/8"

Code	Description
SWAGING HEADS, INCHES	
S1014	1/4"
S1516	5/16"
S1038	3/8"
S1012	1/2"
S1058	5/8"
S1034	3/4"
S1078	7/8"
S6000	1/4, 3/8, 1/2, 5/8, 3/4, 7/8
P3000	PLUMBING 1/2, 3/4, 1"
FLARING TOOL SETS	
F4000	1/4, 3/8, 1/2, 5/8
F5000	1/4, 3/8, 1/2, 5/8, 3/4
F6000	1/4, 3/8, 1/2, 5/8, 3/4, 7/8
SWAGING TOOL SETS	
S4000	1/4, 3/8, 1/2, 5/8
S5000	1/4, 3/8, 1/2, 5/8, 3/4
S6000	1/4, 3/8, 1/2, 5/8, 3/4, 7/8

Code	Description
FLARING HEADS, INCHES	
F1014	1/4"
F1516	5/16"
F1038	3/8"
F1012	1/2"
F1058	5/8"
F1034	3/4"
F1078	7/8"
SWAGING HEADS, INCHES	
S1014	1/4"
S1516	5/16"
S1038	3/8"
S1012	1/2"
S1058	5/8"
S1034	3/4"
S1078	7/8"

Code	Description
SPIN-CASE-S	Soft Deluxe Case - swaging
SPIN-CASE-F	Soft Deluxe Case - flaring
SPIN-X6000	Swaging / flaring tool set - 1/4", 3/8" & 1/2" in soft case

TUBE CUTTERS - METAL TUBING

TOOLS+ ◆ **Imperial**®

HI-DUTY® TUBE CUTTERS
For 1/8" to 1-1/8" and 1/4" to 1-5/8" O.D. tubing.

• Enclosed hardened steel, thrust bearing feed mechanism for smoothest cutting action and trouble free operation.

• Unique design eliminates spiraling for clean right angle cuts. Our high precision machining and construction method permits one-piece screw-type axle for easy access to cutter wheel – no clip to lose or replace.

• Rugged aluminum alloy body designed for handling ease. Body is hand buffed and nickel chrome plated to a high-luster finish.

• Foldaway hardened steel reamer with turned cutting edge removes inside burrs cleanly. Filing surface removes outside burrs.

• Rollers feature flare cut-off groove to reduce tube loss when damaged flare is removed.

• Imperial® cutter wheels are made of the highest quality wear and abrasion-resistant chromium steel and precision machined to exacting specifications for accurate cutting and long life. Each tool is supplied with a spare cutter wheel.

• All Imperial tube cutters are 100% factory tested to ensure accurate spiral-free cutting.

TC-1000

TC-1000	For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (2) S75015 general purpose cutter wheels. Length 5". Wt. 8.8 oz.
TC-1010	For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (2) S75046 cutter wheels for continuous cutting of stainless steel, monel and other hard-temper tubing. Length 5". Wt. 8.8 oz.
TC-1020	Combination tube constrictor & tube cutter. For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes S76637 constrictor wheel and S75015 general purpose cutter wheel. Length 5-1/2". Wt. 8.8 oz.
312-FC	For 1/4" to 1-5/8" (7 mm to 41 mm) O.D. tubing. Includes (2) S75015 general purpose cutter wheels. Length 5-1/2". Wt. 10.4 oz.

Conforms to Federal Specification GGG-C-771d, Type II, Class I.
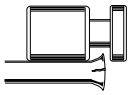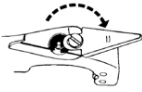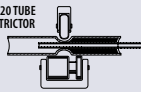
S75015	General purpose cutter wheel.
S75046	Wheel for continuous cutting of stainless steel, monel and other hard temper tubing. For cutters TC-1000, TC-1010, TC-1550, TC-1560, 312-FC, 174-F, TC-2050 and TC-3050.
S16003162	Replacement cutter wheel for soft copper & aluminum tubing is extra sharp to minimize burr buildup.
S76637	Constrictor wheel for producing sweat joints.

TC-1010

312-FC

FLARE CUT-OFF GROOVE
Groove in rollers reduces tube loss when cracked flare is removed.

FOLDAWAY REAMER
Hardened steel reamer with turned cutting edge removes inside burrs cleanly. Filing surface removes outside burrs.

SPARE CUTTING WHEEL
Spare cutter wheel carried under foldaway locking reamer.

TC-1020 TUBE CONSTRICTOR

FILL WITH SOLDER
Joint is ready for sweating when constricted tube contacts smaller tube. Can be used for crimping applications.

JUNIOR TUBE CUTTER
For 1/8" to 3/4" (4 mm to 19 mm) O.D. tubing.

227-FA	Includes S32633 general purpose cutter wheel. Swing radius 2". Length 3-1/2". Wt. 5.0 oz.

227-FA

TUBE CUTTERS - METAL TUBING

TOOLS+ ◆ Imperial®

"IMP"® MINI TUBE CUTTERS
For 1/8" to 5/8", 3/16" to 7/8" and 1/8" to 1-1/8" O.D. tubing.

• Big capacity, small size tube cutters designed for use in tight quarters where other cutters won't fit.

• Enclosed feed screw minimizes contamination assuring continued smooth operation.

• Corrosion-resistant steel rollers positioned at bottom of cutter allow for easier cutter engagement on tubing and smoother cutting action.

• All Imperial® tube cutters are 100% factory tested to ensure accurate spiral-free cutting.

TC-1050 For 1/8" to 5/8" (4 mm to 15 mm) O.D. tubing. Includes (1) S32633 general purpose cutter wheel. Swing radius 1-1/4" (1-3/8" swing radius with 5/8" tube). Length 1-3/4". Wt. 2.5 oz.

S32633 General purpose cutter wheel for TC-1050.

S26883 Screw for TC-1050 cutter wheel.

TC-2050 For 3/16" to 7/8" (5 mm to 22 mm) O.D. tubing. Includes (1) S75015 general purpose cutter wheel. Swing radius 1-11/16". Length 2-1/4". Wt. 4.0 oz.

TC-3050 For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (1) S75015 general purpose cutter wheel. Swing radius 2-1/2" (2-1/16" swing radius with 1-1/8" tube). Length 3". Wt. 7.0 oz.

S75015 General purpose cutter wheel.

S74762 Screw for TC-3050 cutter wheel.

TC-1050

TC-2050

TC-3050

Swing Radius 1-1/4"

Swing Radius 1-11/16"

Swing Radius 2-1/2"

RATCHETING TUBE CUTTERS
For 1/8" to 5/8" and 1/8" to 1-1/8" O.D. tubing.

• Easily completes a full revolution, maximizing leverage.

• Cutter can easily be removed from the handle.

• Ergonomic handle with non-slip grip.

• Six independent drive pawls provide 15° arc-swing.

• Includes (1) general purpose cutter wheel.

TC-1050RH For 1/8" to 5/8" (4 mm to 15 mm) O.D. tubing. 2-Pc. set includes TC-1050 "IMP"® mini tube cutter and ratcheting handle in clamshell packaging. Length 5". Wt. 6.0 oz.

TC-1051 Ratcheting handle only. Length 5". Wt. 1.5 oz.

TC-3050RH For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. 3-Pc. set includes TC-3050 "IMP"® tube cutter, removable deburr tool and ratcheting handle in clamshell packaging. Length 7". Wt. 11.5 oz.

TC-3051 Ratcheting handle and deburr tool. Length 7". Wt. 4.0 oz.

Use cutter with or without patented ratcheting handle - snaps into place in seconds

TC-3050RH includes a removable deburr tool

PATENTED

Ergonomic handle with non-slip grip

Ideal for tight spaces

TC-3050RH

Removable Deburr Tool (TC-3050RH and TC-3051)

Six independent drive pawls give small, 15° arc-swing
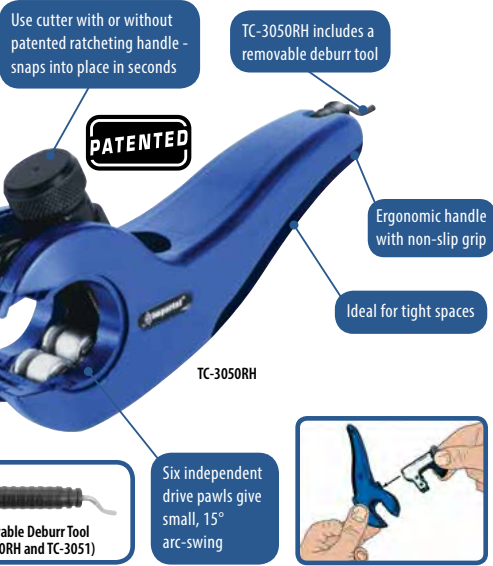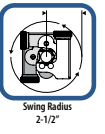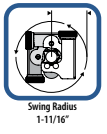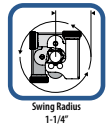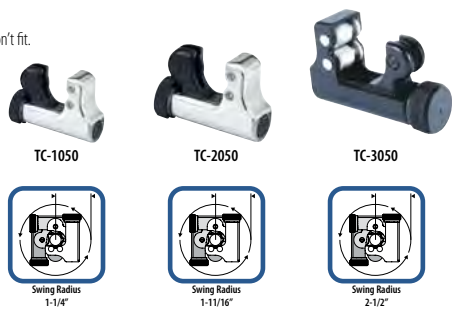
BIG "IMP"® TUBE CUTTER - "Big capacity in small size"
For 3/8" to 1-1/8" (10 mm to 28 mm) O.D. tubing.

174-F Includes (2) S75015 general purpose cutter wheels. Swing radius 1-15/16" (2-1/4" swing radius with 1-1/8" tube). Length 2-11/16". Wt. 5.0 oz.

174-F

Swing Radius 1-15/16"
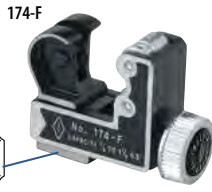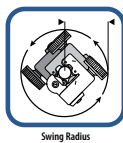
S75015 - Spare cutting wheel

TUBE CUTTERS - METAL TUBING

TOOLS+ ◆ Imperial®

ADJUST-O-MATIC™ TUBE CUTTERS
For 3/8" to 2-5/8" and 2" to 4-1/8" O.D. tubing.

• Ratchet feed mechanism speeds up cutting operation.

• Extra wide rollers with flare cut-off groove stabilize tubing.

• Spare cutting wheel included under handle cap.

• Enclosed screw-type feed mechanism; lightweight aluminum alloy body.

206-FB   For 3/8" to 2-5/8" (10 mm to 66 mm) O.D. tubing. Includes (2) S74761 general purpose cutter wheels. Length closed 7-3/4". Wt. 2.0 lbs.
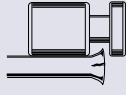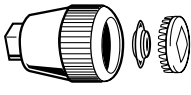
406-FA   For 2" to 4-1/8" (51 mm to 104 mm) O.D. tubing. Includes (2) S74833 general purpose cutter wheels. Length closed 11-1/4". Wt. 3.5 lbs.

Conforms to Federal Specification GGG-C-771d, Type II, Class I.

406-FA   **206-FB**

RATCHET FEED Ratchet release opens cutter instantly to maximum size.	**RATCHET FEED** Push on handle to slide cutter wheel to tubing. Rotate handle for fine adjustment.	**FLARE CUT-OFF GROOVE** Wide flare cut-off groove in rollers to accommodate flares on large size tubing.	**SPARE CUTTING WHEEL** Spare cutter wheel included in handle under snap-off cap.

144-F IMPERIAL® TUBE CUTTER SERVICE CENTER
For 1/8" to 4-1/8" O.D. tubing.

Selling Imperial® replacement cutter wheels, reamer blades and fasteners is easy. Our Service Center organizes a popular selection of replacement parts for Imperial cutters. Display on the counter or bring it with you when making sales calls.

• 15 most common replacement parts stocked in one handy container.
• Includes a visual replacement chart for quick and easy identification.

144-F

144-F SERVICE CENTER INCLUDES:

PART NO.	QUANTITY	DESCRIPTION	CUTTER
S75015	10	General Purpose Cutter Wheel	TC-1000, TC-1010, 312-FC, 174-F, TC-2050, TC-3050
S75046	5	Cutter Wheel for Stainless Steel	TC-1000, TC-1010, 312-FC, 174-F, TC-2050, TC-3050
S32633	10	Cutter Wheel	TC-1050, 227-FA
S74761	5	Cutter Wheel	206-FB, 206-FBP
S74762	5	Cutter Wheel Retaining Screw	TC-1000, TC-1010, 312-FC, 174-F, TC-2050, TC-3050
S74833	3	Cutter Wheel	406-FA
S26883	3	Cutter Wheel Retaining Screw	TC-1050
S77511	3	Cutter Wheel Retaining Screw	206-FB, 206-FBP
S74834	3	Cutter Wheel Retaining Screw	406-FA
S76637	3	Constrictor Roller Wheel	TC-1000, TC-1010, TC-1020, 312-FC
S16003162	5	Cutter Wheel for Soft Copper Only	TC-1000, TC-1010, 312-FC, 174-F, TC-2050, TC-3050
S10000770	3	Cutter Wheel for PVC	206-FB, 206-FBP
S7931801	3	Reamer Blade	TC-1000, TC-1010, 312-FC
S8201501	3	Retaining Screw for Reamer Blade	TC-1000, TC-1010, 312-FC
S74197	3	Spring Washer for Reamer Blade	TC-1000, TC-1010, 312-FC
144-FB	1	Container only	

TUBE BENDERS

SPRING TYPE TUBE BENDERS
For soft copper and aluminum tubing.
For 1/4" to 7/8" O.D. tubing.

Tools allow hand bending of soft tubing to any shape without collapsing walls. Special spring steel, zinc finish. End belled for quick tube removal.

201-F Set of 8 benders for 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", 3/4" and 7/8" O.D. tubing.
101-F Set of 6 benders for 1/4", 5/16", 3/8", 7/16", 1/2" and 5/8" O.D. tubing.
163-F Set of 4 benders for 1/4", 3/8", 1/2" and 5/8" O.D. tubing.
112-F Set of 3 benders for 1/4", 5/16" and 3/8" O.D. tubing.

102-F-08

PART NO.	TUBE O.D. (in.)	LENGTH (in.)	WEIGHT EACH (OZ.)
102-F-04	1/4	10	3
102-F-05	5/16	10	3
102-F-06	3/8	10	4
102-F-07	7/16	12	6.25
102-F-08	1/2	12	6.5
102-F-10	5/8	12	8
102-F-12	3/4	12	10
102-F-14	7/8	12	10

Each tool bends only one size.

INSTALL+

IN STOCK

ASHP

PAGE 89

DIVERSITECH® INTERNATIONAL

TUBE BENDERS

TOOLS+ ◆ **Imperial**®

470-FH TRIPLE HEAD 180° TUBE BENDER WITH ROTO-LOK™ INDEXING HANDLE

• Bends 3/16", 1/4", 5/16" and 3/8" O.D. tubing.

• Patented, quick-action indexing lever repositions two-stage handle midway through bend when both handles begin to meet. This feature allows easy fabrication of bends up to 180° with reduced effort, better control and no crossing of handles!

• Optimum bending radius — for each tubing size.

• Calibrated markings — for making accurate left-hand, right-hand and offset bends.

• Compact design for working in tight spaces.

• Cushion grips — for comfort and stability.

• Made of lightweight, die-cast aluminum.

TUBE O.D. (in.)	RADIUS TO CENTER OF TUBE (in.)
3/16	9/16
1/4	9/16
5/16	11/16
3/8	15/16

Deluxe cushion grips for comfort and stability

PATENTED

Patented Roto-Lok™ Indexing Lever - Smooth, tight 180˚ bends with less effort and improved control

Lightweight die-cast aluminum

Bends 3/16", 1/4", 5/16" and 3/8" O.D. tubing

Fixed tube hook

470-FH

BEND TO 90°

PULL TRIGGER TO RELEASE HANDLE

MOVE HANDLE TO START SECOND BEND

LOWER HANDLE TO COMPLETE BEND
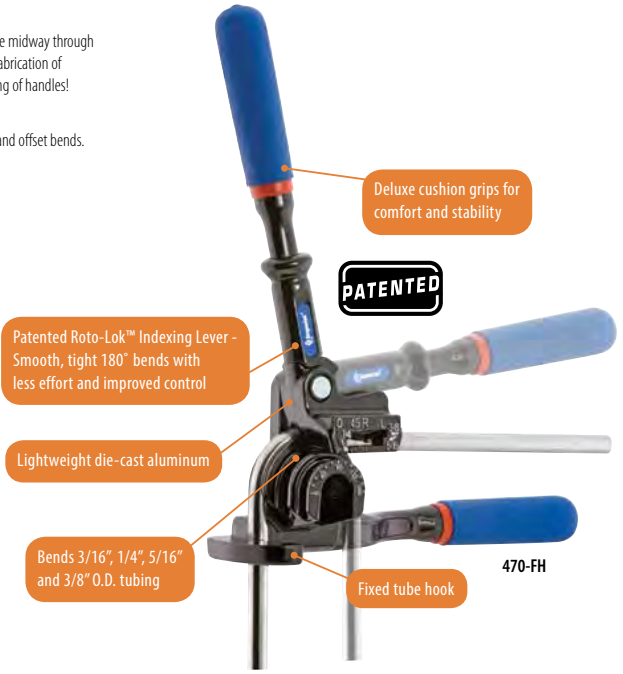
TUBE BENDERS

370-FH TRIPLE HEAD 180° TUBE BENDER

- Bends 3/16", 1/4", 3/8" and 1/2" tubing.
- Makes smooth, tight-radius 180° bends.
- Calibrated markings - for making accurate left-hand, right-hand and offset bends.
- Adjustable hook.
- Optimum bending radius - for each tubing size.
- Cushion grips - for extreme comfort.
- Made of lightweight die-cast aluminum.

PATENTED
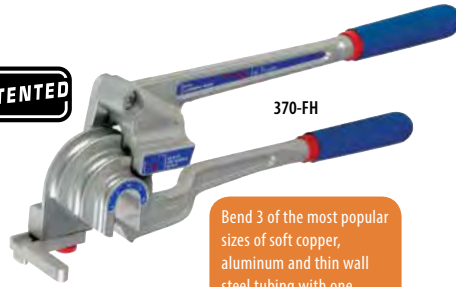
370-FH

Bend 3 of the most popular sizes of soft copper, aluminum and thin wall steel tubing with one rugged, precise tool!

TUBE O.D. (in.)	RADIUS TO CENTER OF TUBE (in.)
3/16	11/16
1/4	11/16
3/8	1-1/8
1/2	1-1/2

Easy 180° bends in one swift motion

IMP™ TRIPLE HEAD BENDERS

- Bends soft copper, aluminum and thin wall steel tubing.
- Bends 1/8", 3/16", 1/4", 5/16", and 3/8" tubing.
- Makes smooth, tight-radius 90° bends.
- Calibrated markings - for making accurate left-hand, right-hand and offset bends.
- 90° start requires less effort — making bending fast and easy.
- Made of lightweight die-cast aluminum.

367-FH   For 1/8", 3/16" and 1/4" (3 mm, 4 mm and 6 mm) O.D. tubing. Wt. 0.5 lbs.

368-FH   For 3/16", 1/4", 5/16" and 3/8" (6 mm and 8 mm) O.D. tubing. Wt. 1.0 lbs.

367-FH

TUBE O.D. (in.)	RADIUS TO CENTER OF TUBE	
	(in.)	(mm)
1/8	5/8	16
3/16	19/32	15
1/4	9/16	14

368-FH

TUBE O.D. (in.)	RADIUS TO CENTER OF TUBE	
	(in.)	(mm)
3/16	1-1/64	26
1/4	1-1/64	26
5/16	1	25
3/8	15/16	24

367-FH

368-FH

LEVER-TYPE TUBE BENDERS

TOOLS+ ◆ Imperial®

.

364-FHA LEVER TYPE TUBE BENDERS
For 1/8" to 1" and 6 mm to 12 mm O.D. tubing.

Each tool bends one size. Open-side type which slips over tube at any point. Makes smooth, tight radius bends up to 180° with minimum effort. No scoring or flattening of tubing. Calibrated to show angle of bend. Wide hook grips tubing securely.

PART NO.	TUBE O.D. (in.)	RADIUS TO CENTER OF TUBE (in.)	WEIGHT EACH (lbs.)
364-FH-02	1/8	3/8	0.5
364-FH-03	3/16	7/16	0.5
364-FHA-04	1/4	9/16	1.0
364-FHA-05	5/16	11/16	1.0
364-FHA-06	3/8	15/16	1.75
364-FHA-08	1/2	1-1/2	3.5
364-FHA-10*	5/8	2-1/4	5.5
364-FHA-12*	3/4	3	7.0
364-FHA-14*	7/8	3	10.5
364-FHA-16*	1	3-1/2	10.5

Each tool bends only one size.
Conforms to Federal Specification GGG-B-191a Type III, Class 2.
* For bending annealed copper and aluminum tubing only.

METRIC SIZE BENDING TOOLS

PART NO.	TUBE O.D. (mm)	RADIUS TO CENTER OF TUBE		WEIGHT EACH	
		(mm)	(inches)	(kg.)	(lbs.)
364-FHAM-6MM	6	14.2	9/16	0.45	1.0
364-FHAM-10MM	10	24.0	15/16	0.79	1.75
364-FHAM-12MM	12	38.1	1-1/2	1.6	3.5

Each tool bends only one size.

364-FHB SWIVEL HANDLE TUBE BENDERS
For 1/4" to 1/2" and 6 mm to 12 mm O.D. tubing.

The 364–FHB series has a swivel handle that can be repositioned midway through a bend when both handles begin to meet. This simple feature allows easy fabrication of bends up to 180° with reduced effort, better control and without the crossing of handles, typical of most other lever type benders.

PART NO.	TUBE O.D. (in.)	RADIUS TO CENTER OF TUBE (in.)	WEIGHT EACH (lbs.)
364-FHB-04	1/4	9/16	1.0
364-FHB-05	5/16	11/16	1.0
364-FHB-06	3/8	15/16	1.75
364-FHB-07	7/16	1-1/2	3.5
364-FHB-08	1/2	1-1/2	3.5

Each tool bends only one size.
Conforms to Federal Specification GGG-B-191a Type III, Class 2.

METRIC SIZE BENDING TOOLS

PART NO.	TUBE O.D. (mm)	RADIUS TO CENTER OF TUBE		WEIGHT EACH	
		(mm)	(inches)	(kg.)	(lbs.)
364-FHBM-6MM	6	14.2	9/16	0.45	1.0
364-FHBM-8MM	8	17.5	11/16	0.45	1.0
364-FHBM-12MM	12	38.1	1-1/2	1.6	3.5

Each tool bends only one size.

364-FHA-14
Features telescopic handles for increased leverage. Expandable style furnished for 7/8" and 1" O.D. tubing.

364-FHA-06
Style for 1/4" through 1/2" and 6 mm to 12 mm O.D. tubing.

364-FH-02
Style for 1/8" and 3/16" O.D. tubing.

364-FHA-10
Style for 5/8" and 3/4" O.D. tubing.

364-FHB-06
Style for 1/4" through 1/2" and 6 mm to 12 mm O.D. tubing.

Starting at 0°

Bends to 90°

Handle swivels at 90°

Complete bend at 180°

DIVERSITECH INTERNATIONAL® Glaisdale Drive East ǀ Nottingham NG8 4LY ǀ United Kingdom

FLARING AND SWAGING

TOOLS+   **Imperial**

"GRABBER"™ ROL-AIR™ 45° FLARING TOOL
Universal application. Adjustable opening holds all sizes.
Flares and burnishes 3/16" to 5/8" (4.75 mm to 16 mm) O.D. tubing.

WORKS WITH R-410A

525-F   Unique, self-adjusting, tube holding mechanism permits flaring any size tubing within the range of 3/16" to 5/8" (4.75 mm to 16 mm) O.D. Innovative, single-opening design is more compact and easier to use than conventional multi-opening flaring bars. Faceted, hardened steel, chrome finished cone rolls out and burnishes perfect 45° flare above the tube-holding mechanism reducing need for deburring. Original wall thickness is maintained at base of flare. Slip-on self-centering yoke permits use in tight quarters. Large handle, with better leverage, and precision threads on feed screw make flaring effortless. High quality construction with satin chrome and black finish. Wt. 1.75 lbs.

525-F

Outside Tube Diameter	(in.)	3/16	1/4	5/16	3/8	1/2	5/8
Wall Thickness	(in.)	.028	.035	.035	.035	.035	.035

Outside Tube Diameter	(mm)	4.75	6	8	10	12	15	16
Wall Thickness	(mm)	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Flares rolled out above die bar by super-smooth faceted cone. Makes stronger flares.
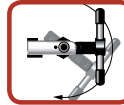
Unique detention mechanism for rapid engagement and release of die blocks.

(1) Insert tubing into adjustable opening of tube-holding assembly. Position end of tubing approximately 1/8" above the surface of holder.

(2) Tighten clamp screw approximately 1/2 to 3/4 of a turn beyond free travel position to secure tubing.

(3) Be certain flaring cone surface is oiled. Slip yoke over tube-holding assembly centering on tubing. Twist yoke clockwise to lock in position. Turn yoke handle clockwise to flare.

1/8"
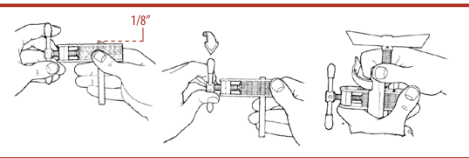
37° FLARING TOOL
For 3/16", 1/4", 5/16", 3/8", 1/2" and 5/8" O.D. tubing.

437-FB   For use with soft copper, aluminum and brass tubing. Hardened steel, chrome finished cone makes exceptionally smooth, high-strength flares with a radius at base of flare — instead of the sharp angle formed by ordinary tools. Slip-on yoke permits use in tight quarters, allows flaring where there is little space between nut and tube end. New feed screw design provides smooth, easier operation. Positive gripping and self-gauging of tube for exact flare size. Sliding die blocks lock in place by clamp action. Satin chrome and black finish. Wt. 1.75 lbs.

437-FB

Outside Tube Diameter	(in.)	3/16	1/4	5/16	3/8	1/2	5/8
Wall Thickness	(in.)	.032	.032	.032	.032	.035	.035

FORMS STRONGER FLARES- Stronger flares assured by smooth, even radius formed at base of every flare by engineered chamfer.

SELF GAUGING- Just insert tube flush with top of die for accurate flare size.

FLARING AND SWAGING

TOOLS+   ◆ **Imperial**®

45° FLARING TOOL
For 3/16″, 1/4″, 5/16″, 3/8″, 7/16″, 1/2″ and 5/8″ O.D. tubing.

195-FC   Flares 7 sizes of tubing. Rugged forged steel slip-on yoke and hardened flaring bar. Positive clamping action of bars prevents tube slippage. Self-centering yoke with swivel-type, hardened steel, chrome finished flaring cone forms better flares with less effort. Design of yoke permits flaring where there is little space between nut and tube end. Satin finish nickel chrome plated. Wt. 2.0 lbs.

195-FC

Outside Tube Diameter	(in.)	3/16	1/4	5/16	3/8	7/16	1/2	5/8
Wall Thickness	(in.)	.028	.035	.035	.035	.035	.035	.035
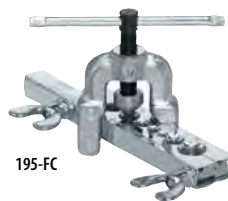
45° LARGE SIZE FLARING TOOLS

Flares larger tube sizes. Quick slip-on yoke with hardened steel, chrome finished swivel flaring cone reduces effort. Positive clamping action of flaring bar eliminates tube movement. Nickel chrome finish.

Conforms to Federal Specification GGG-F-451a Type 1, Class 2. Style A.

SELF GAUGING - Just insert tube flush with top of die for accurate flare size.

FORMS STRONGER FLARES- Stronger flares assured by smooth, even radius formed at base of every flare by engineered chamfer.

203-FA   For sizes 5/8″, 3/4″, 7/8″ and 1-1/8″ O.D. tubing. Wt. 3.75 lbs.

375-FS   For sizes 1/8″, 3/16″, 1/4″, 5/16″, 3/8″, 7/16″, 1/2″, 5/8″ and 3/4″ O.D. tubing. Includes tool case. Wt. 3.75 lbs.

Outside Tube Diameter	(in.)	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1-1/8
Wall Thickness	(in.)	.025	.028	.035	.035	.035	.035	.035	.049	.049	.049	.058	.058

45° ROL-AIR™ FLARING TOOLS

45° ROL-AIR™ FLARING TOOL
Flares and burnishes 3/16″, 1/4″, 5/16″, 3/8″, 1/2″ and 5/8″ O.D. tubing.

500-FC   Faceted, hardened steel, chrome finished cone rolls out perfect 45° flares above die block, and automatically burnishes flare face reducing the need for deburring. Original wall thickness is maintained at base of flare. Slip-on yoke permits use in tight quarters, where there is little space between nut and tube end. Larger handle, with better leverage, and precision threads on feed screw make flaring effortless. Heat treated dies grip tubing without scoring. Satin chrome and black finish. Wt. 1.5 lbs.

WORKS WITH R-410A

500-FC

Outside Tube Diameter	(in.)	3/16	1/4	5/16	3/8	1/2	5/8
Wall Thickness	(in.)	.028	.035	.035	.035	.035	.035

Flares rolled out above die bar by super-smooth faceted cone. Makes stronger flares.

Unique detention mechanism for rapid engagement and release of die blocks.

FLARING AND SWAGING

175-EX XPANDR™ SWAGING/EXPANDING KIT

- Easily expands tube for braze or soldered joints in seconds.
- Floating jaw head design is self-centering for fast, accurate alignment.
- Re-rounds deformed tube ends.
- Accurate joints in seconds without using fittings.
- For soft copper and soft thin wall steel and stainless steel tubing.
- Save 60-70% of time over conventional swaging tools.
- Reduces soldering by 50% over standard fittings.
- Meets ARI tube insertion recommendations.
- Long life with high alloy hardened steel jaw segments.
- XpandR™ Tool comes with non-slip, ergonomically designed grips.
- Includes 5 heads: 3/8", 1/2", 5/8", 3/4" and 7/8".
- Includes metal tool case.

175-EX

SIX EASY STEPS:

1. Deburr inside of tube.
2. To create perfectly centered capillary sockets for soldering or brazing, you must use soft copper or fully anneal end of tube to be expanded.
3. Pull XpandR™ handle up to 90-degree position. Maintain this position as you screw the appropriate size head over the center-punch and tighten.
4. Insert the end of the tube over the XpandR™ head completely.
5. Pull the lever completely down.
6. Return the lever to the 90-degree position. Remove expanded tube.
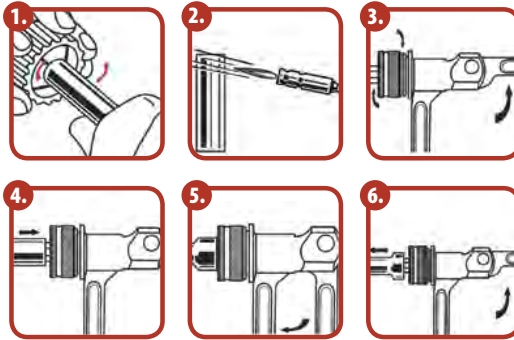
175-EX KIT INCLUDES	
175EXP	XpandR™ Pliers
175EXC	XpandR™ Case
175EX06	3/8" head
175EX08	1/2" head
175EX10	5/8" head
175EX12	3/4" head
175EX14	7/8" head
You may order kit items separately. Kit wt. 20 lbs.	
ADDITIONAL HEAD SIZES AVAILABLE:	
175EX16	1" head
175EX18	1-1/8" head
175EX22	1-3/8" head
175EX26	1-5/8" head

TO RE-ROUND SLIGHTLY DEFORMED TUBE ENDS:

1. Insert deformed tube end to the first groove of head.
2. Pull the lever completely down.
3. Return the lever to the 90-degree position. Remove expanded tube.

FLARING AND SWAGING

FLARING (45°) & SWAGING TOOL
For 1/8" to 3/4" O.D. tubing.

275-FS Flares and swages. Converts quickly. Screw-type feed. Ideal for use in close quarters. Two bars included cover 9 sizes. Swivel-type swaging adapters and flaring cone are hardened steel, chrome finished for easy operation. Self-centering, slip-on forged steel yoke. Includes tool case. Wt. 3.5 lbs. Flares 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4" O.D. Includes 5 swage adapters for 7 tube sizes: 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" O.D.

Replacement parts: **278-FS-03X04X06** Adapter 3/16", 1/4", 3/8". **278-FS-05** Adapter 5/16". **278-FS-08** Adapter 1/2".

278-FS-10 Adapter 5/8". **278-FS-12** Adapter 3/4". **S38600** Flaring Cone.

275-FS

Outside Tube Diameter	(in.)	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Wall Thickness	(in.)	.020	.028	.035	.035	.035	.035	.035	.035	.035

275-FS

45° FLARING, DOUBLE FLARING & SWAGING TOOL
For 1/8" to 3/4" O.D. tubing.

275-FSD Same as 275-FS with the addition of 5 double flaring adapters (3/16", 1/4", 5/16", 3/8", 1/2" O.D.).

45° FLARING, SWAGING AND CUTTING KIT
For soft copper, aluminum, steel, stainless steel and brass tubing.

275-FSC Kit contains a TC-1000 tube cutter for 1/8" to 1-1/8" O.D. tubing and 275-FS 45° flaring and swaging tool. Includes tool case. Wt. 3.0 lbs.

Flares: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4" O.D. tubing.

Swages: 3/16", 1/4", 5/16", 3/8", 1/2", 5/8" and 3/4" O.D. tubing.

45° DOUBLE FLARING, SWAGING AND CUTTING KIT

275-FSCD Kit contains 275-FS, TC-1000, and double flaring adapters for 3/16", 1/4", 5/16", 3/8" and 1/2" O.D. tubing. Includes tool case.

275-FSC

TUBING TOOL KITS

45° FLARING, SWAGING AND CUTTING KIT
For soft copper, aluminum, steel, stainless steel and brass tubing.

275-FSC Kit contains a TC-1000 tube cutter for 1/8" to 1-1/8" O.D. tubing and 275-FS 45° flaring and swaging tool. Includes tool case. Wt. 3.0 lbs.

Flares: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4" O.D. tubing.

Swages: 3/16", 1/4", 5/16", 3/8", 1/2", 5/8" and 3/4" O.D. tubing.

45° DOUBLE FLARING, SWAGING AND CUTTING KIT
275-FSCD Kit contains 275-FS, TC-1000, and double flaring adapters for 3/16", 1/4", 5/16", 3/8" and 1/2" O.D. tubing. Includes tool case.

275-FSC

TESTING AND SERVICE TOOLS

TOOLS+   ◆ **Imperial**®

PINCH-OFF TOOL
For 1/4" to 1/2" O.D. tubing.

Temporarily closes soft copper, aluminum or steel tubing so no liquid or gas passes sealed part. Lets you disconnect line while making repairs without loss of liquid or gas. Forming holes for 1/4", 5/16", 3/8" and 1/2" O.D. tubing.

105-FF   Pinch-Off Tool for 1/4", 5/16", 3/8" and 1/2" O.D. tubing. Wt. .75 lbs.

105-FF

TUBING TEST PLUGS
For 1/4" to 1-3/8" O.D. tubing.

For temporary shut-off of tubing without pinching it off or installing a valve. Especially handy for plumbing, heating, refrigeration and instrumentation when troubleshooting for leaks. Lightweight, fast acting, dependable. Insert plug in tube end and tighten wing nut. Expander seals tube and holds pressures to 100 PSI.

142-F   3-Pc. test plug kit for 1/2", 5/8" and 7/8" O.D. tubing. Wt. .5 lbs.

140-F-06

INDIVIDUAL TEST PLUGS

PART NO.	TUBE O.D. (in.)	MIN I.D. DIA. (in.)	MAX I.D. DIA. (in.)	WEIGHT EACH (oz.)	REPLACEMENT SLEEVE
140-F-04	1/4	.171	.190	.5	S62641
140-F-06	3/8	.265	.315	.75	S62648
140-F-08	1/2	.390	.436	1.0	S62655
140-F-10	5/8	.515	.545	1.5	S62661
140-F-12	3/4	.640	.745	2.0	S62666
140-F-14	7/8	.734	.995	3.0	S66434
140-F-18	1-1/8	.984	1.245	4.0	S66435
140-F-22	1-3/8	1.218	1.270	4.0	S71174

142-F

WRENCHES

WRENCHES
For Refrigeration and Air Conditioning Service.

127-C   Compressor access valve wrench. Chrome plated. Has 1/4", 3/8", 3/16" and 5/16" square drive ratchets and is specially designed for use on compressors with access valves in hard to reach places. Reversible ratchets.

Square ratchet drives for use on compressors with access valves in hard to reach places

Reversible ratchets
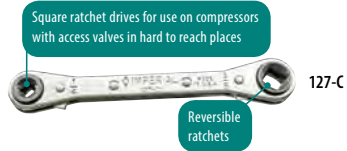
127-C

127-CO   Same as 127-C except with unique 25° offset that provides additional convenience in hard to reach places.

127-CO

124-C   Combination wrench with the four sizes most needed for servicing air-conditioning and refrigerator equipment:
• 9/16" hex for dust cap on access valves and plug oil check on compressor.
• 1/2" hex for compressor mounting bolts.
• 1/4" square for valve stem and service valves and old style compressor valves.
• 3/16" square for valve refrigerant charging tanks.

124-C

TUBE DEBURRING

DEBURRING TOOL

210-F The rotary style blade is perfect for removing burrs from holes and edges. Large ergonomic handle reduces user fatigue. Ships complete with two heavy duty blades – extra blade stores inside the handle. For copper, steel, aluminum, zinc, cast iron, brass and plastic tubing. Length 5-3/4". Wt. 1.5 oz.

Extra blade included-
stores inside the handle.

210-F

S10001087 –Deburr Replacement Blade

INNER-OUTER REAMING AND DEBURRING TOOLS
For 3/16" to 1-1/2" (5 mm to 38 mm) O.D. tubing.

Reams both inside and outside edges of tube at a 60° included angle with 3 hardened cutting blades. Tough die cast body. Deburrs both clockwise and counterclockwise. Fluted body is shaped to fit comfortably in palm.

208-F Reamer for copper, aluminum and brass tubing. Hardened steel cutter blades. Blue finish. Wt. .63 lbs.

208-FSS Reamer for aircraft grade stainless steel tubing, hard or soft copper, aluminum, brass and steel tubing. Tungsten hardened tool steel cutter blades. Black finish. Wt. .63 lbs.
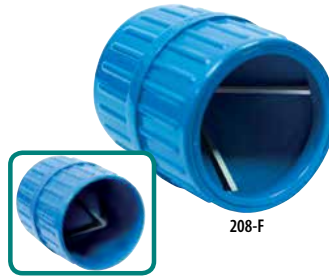
208-F

IMPERIAL® TOOL BAG

15-POCKET PROFESSIONAL TOOL BAG
TB-52 Tool Bag

• 8"W x 16"L x 11"D.
• Double layered ballistic nylon.
• Wide opening mouth.
• Padded handles and 48" shoulder strap.
• Designed to hold tools.
• Tools not included!

TB-52

COMBINATION TOOLS

TOOLS+   ◆ **Imperial**®
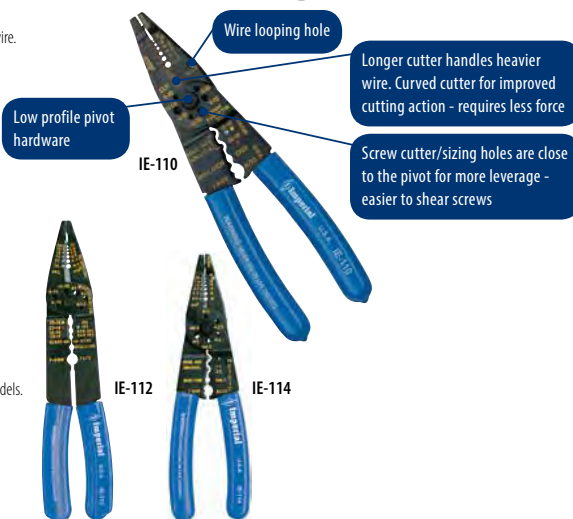
• (6) upfront, precision-ground stripping stations for solid and stranded wire.
• Wire cutter.
• (6) screw sizing and cutting stations.
• Wire terminal and 7-8 mm automotive ignition crimp stations.
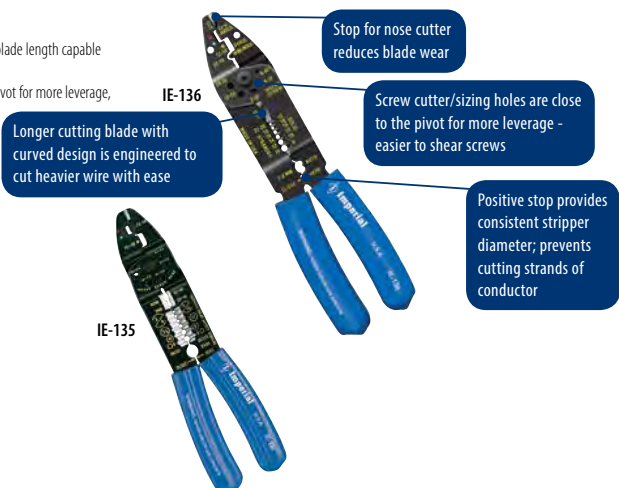• Highly visible, easy-to-read graphics.
• Cushion grips.

Wire looping hole

Longer cutter handles heavier wire. Curved cutter for improved cutting action - requires less force

Low profile pivot hardware

IE-110

Screw cutter/sizing holes are close to the pivot for more leverage - easier to shear screws

5-IN-1 COMBINATION TOOL

IE-110
• Strips: 22/20/18/16/14/12/10 AWG.
• Crimps insulated and non-insulated: 22-18, 16-10 AWG; non-insulated: Auto 7 & 8 mm.
• Screw cutter: 4-40 / 5-40 / 6-32 / 8-32 / 10-32 / 10-24.
• Wire sizes, etc., are embossed in metal and paint-filled.
• Serrated pliers nose for pulling and looping wire.
• Air-pocket cushion grips.
• Available in AWG, metric or combination AWG/metric models.

IE-112
• Combination Metric/AWG.

IE-114
• Metric version.

IE-112   IE-114

UPFRONT CUTTER/CRIMPER/STRIPPER

IE-136
• Curved cutter reduces force required to cut; longer blade length capable of cutting NM-B cable in a single stroke.
• Screw cutter/sizing holes are moved closer to the pivot for more leverage, making it easier to shear screws.
• Strips: 10-22 AWG.
• Crimps: insulated 10-22 AWG.
• Crimps: non-insulated 10-22 AWG, 7-8 mm Auto.
• Screw cutter: 4-40 / 6-32 / 8-32 / 10-32 / 10-24.
• Anvil-type wire cutter at nose of pliers.

IE-135
• Anvil-type wire cutter at nose of pliers.
• Insulated and non-insulated crimp stations.
• Screw sizing and cutting stations.

Stop for nose cutter reduces blade wear

IE-136

Screw cutter/sizing holes are close to the pivot for more leverage - easier to shear screws

Longer cutting blade with curved design is engineered to cut heavier wire with ease

Positive stop provides consistent stripper diameter; prevents cutting strands of conductor

IE-135

Conforms to ASME Standard B107.500-2010

PART NO.	DESCRIPTION	STRIPPER SIZE (AWG)	CUTTER TYPE	CRIMPS INSULATED (AWG)	CRIMPS NON - INSULATED (AWG)	SCREW CUTTER	NOM. LENGTH (in.)
IE-110	Super 5-in-1 Combination	10-22	Curved-long	10-22	10-22 7-8 mm Auto	4-40 / 5-40 / 6-32 8-32 / 10-32 / 10-24	8-1/4
IE-112	Combination Metric/AWG	10-20, 0.75-6.0 mm²	Straight	10-22	10-22 7-8 mm Auto	6-32 / 8-32 / 10-32 3.5/4.0/5.0 mm	9-1/2
IE-114	Metric	0.75-6.0 mm², 10-22	Straight	1.5-6.0 mm 10-22	1.5-6.0 mm, 10-22 7-8 mm Auto	2.5/3.0/3.5/4.0/ 4.5/5.0 mm	8-1/4
IE-135	Crimper/Cutter with 6 Strip Stations	10-22	Anvil	10-22	10-22, 7-8 mm Auto	4-40 / 6-32 / 8-32 / 10-32 / 10-24	8-3/4
IE-136	Upfront Cutter/ Crimper Stripper	8-18 Solid 10-22 Stranded	Anvil Curved-long	10-22	10-22, 7-8 mm Auto	4-40 / 6-32 / 8-32 / 10-32 / 10-24	8-1/2

HOSE SHUT-OFF ADAPTORS

TOOLS+   Imperial®

HOSE SHUT-OFF ADAPTERS

The Kwik-Coupler® adapter set is intended for use with refrigeration and air-conditioning service hoses when connecting to core valve type access fittings. Conventional threaded connecting is converted to push–pull operation which is faster, easier and positive sealing at all times. Valve cores are depressed automatically without adjustments or loss of refrigerant. Disconnecting is also accomplished without loss of refrigerant.

An automatic shut-off valve retains refrigerant pressure in a disconnected hose. This feature permits transferring high side hose refrigerant through the service manifold into the low side, thereby eliminating waste and hazardous high pressure discharge and atmospheric damage.

Features

- Automatic full depression of core valves without adjustment, regardless of core position.
- Coupler halves separately connect to access fitting and hose end, then easy push/pull operation automatically opens or closes system without loss of refrigerant.
- Automatic shut-off of hose ends permits discharging high side hose through manifold into low side.
- Eliminates hazardous discharge of refrigerant and oil from system when disconnecting hose.
- Simplifies operation of charging critical amount of refrigerant into small systems.
- Prevents finger burn when disconnecting - especially servicing heat pumps in cold weather.
- Core depressors in hose ends no longer necessary - speeds servicing of systems with hand valves.

16-C   Straight Coupler (45° Flare) 1/4" female x 1/4" male.

17-C   90° Elbow Coupler (45° Flare) 1/4" female x 1/4" male.

18-C   (Set) includes 16-C and 17-C.

26-C   Straight Coupler (45° Flare) 5/16" female x 5/16" male.

27-C   90° Elbow Coupler (45° Flare) 5/16" female x 5/16" male. 26-C and 27-C.

WORKS WITH R-410A

17-C

WORKS WITH R-410A

16-C

18-C
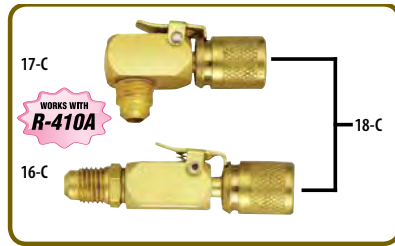
CONNECTING ILLUSTRATION

Charging Hose

Male Coupler Half

Disconnect (Depress)

Connect

System Access Fitting

Female Coupler Half

AUTOMOTIVE KWIK-COUPLER® ADAPTER FOR R-12

20-A   High side adapter. Converts 3/16" system access valve to 1/4" access valve for use with standard 1/4" charging hose.
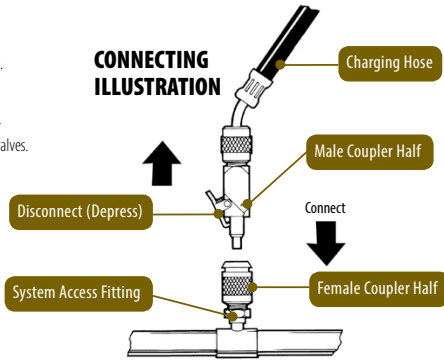
WARNING: Do not allow any refrigerant cylinder, connected for charging, to be exposed to system high side pressure cylinder - explosion could result!

20-A

24-C

HI-DUTY® SHUT-OFF COUPLER

- Coupler captures refrigerant within hose, eliminating refrigerant loss, atmospheric damage and finger burns.
- Connects quickly & easily to any standard 1/4" SAE refrigerant hose.
- Solid brass construction for years of dependable service.
- Innovative modular design permits easy field repairs.

SHUT-OFF COUPLER

PART NO.	DESCRIPTION
24-C	90 Degree 1/4" SAE Shut-Off Coupler
25-K	Coupler Service Kit

COMBINATION TOOLS

TOOLS+

Imperial®

- (6) upfront, precision-ground stripping stations for solid and stranded wire.
- Wire cutter.
- (6) screw sizing and cutting stations.
- Wire terminal and 7-8 mm automotive ignition crimp stations.
- Highly visible, easy-to-read graphics.
- Cushion grips.

Wire looping hole

Longer cutter handles heavier wire. Curved cutter for improved cutting action - requires less force

Low profile pivot hardware

IE-110

Screw cutter/sizing holes are close to the pivot for more leverage - easier to shear screws

5-IN-1 COMBINATION TOOL

IE-110
- Strips: 22/20/18/16/14/12/10 AWG.
- Crimps insulated and non-insulated: 22-18, 16-10 AWG; non-insulated: Auto 7 & 8 mm.
- Screw cutter: 4-40 / 5-40 / 6-32 / 8-32 / 10-32 / 10-24.
- Wire sizes, etc., are embossed in metal and paint-filled.
- Serrated pliers nose for pulling and looping wire.
- Air-pocket cushion grips.
- Available in AWG, metric or combination AWG/metric models.

IE-112
- Combination Metric/AWG.

IE-114
- Metric version.

IE-112   IE-114

UPFRONT CUTTER/CRIMPER/STRIPPER

IE-136
- Curved cutter reduces force required to cut; longer blade length capable of cutting NM-B cable in a single stroke.
- Screw cutter/sizing holes are moved closer to the pivot for more leverage, making it easier to shear screws.
- Strips: 10-22 AWG.
- Crimps: insulated 10-22 AWG.
- Crimps: non-insulated 10-22 AWG, 7-8 mm Auto.
- Screw cutter: 4-40 / 6-32 / 8-32 / 10-32 / 10-24.
- Anvil-type wire cutter at nose of pliers.

IE-135
- Anvil-type wire cutter at nose of pliers.
- Insulated and non-insulated crimp stations.
- Screw sizing and cutting stations.

Stop for nose cutter reduces blade wear

IE-136

Screw cutter/sizing holes are close to the pivot for more leverage - easier to shear screws

Longer cutting blade with curved design is engineered to cut heavier wire with ease

Positive stop provides consistent stripper diameter; prevents cutting strands of conductor

IE-135

Conforms to ASME Standard B107.500-2010

PART NO.	DESCRIPTION	STRIPPER SIZE (AWG)	CUTTER TYPE	CRIMPS INSULATED (AWG)	CRIMPS NON - INSULATED (AWG)	SCREW CUTTER	NOM. LENGTH (in.)
IE-110	Super 5-in-1 Combination	10-22	Curved-long	10-22	10-22 7-8 mm Auto	4-40 / 5-40 / 6-32 8-32 / 10-32 / 10-24	8-1/4
IE-112	Combination Metric/AWG	10-20, 0.75-6.0 mm²	Straight	10-22	10-22 7- 8 mm Auto	6-32 / 8-32 / 10-32 3.5/4.0/5.0 mm	9-1/2
IE-114	Metric	0.75-6.0 mm², 10-22	Straight	1.5-6.0 mm 10-22	1.5-6.0 mm, 10-22 7-8 mm Auto	2.5/3.0/3.5/4.0/ 4.5/5.0 mm	8-1/4
IE-135	Crimper/Cutter with 6 Strip Stations	10-22	Anvil	10-22	10-22, 7-8 mm Auto	4-40 / 6-32 / 8-32 / 10-32 / 10-24	8-3/4
IE-136	Upfront Cutter/ Crimper Stripper	8-18 Solid 10-22 Stranded	Anvil Curved-long	10-22	10-22, 7-8 mm Auto	4-40 / 6-32 / 8-32 / 10-32 / 10-24	8-1/2

DiversiTech® INTERNATIONAL

Glaisdale Drive East | Nottingham NG8 4LY | United Kingdom

ACCESS VALVES AND ADAPTORS

TOOLS+   Imperial

ACCESS FITTINGS/SWIVEL ADAPTERS

9-C   Straight adapter, 1/8" female pipe by 1/4" SAE female swivel connection.

9-C

ACCESS VALVES

These valves are designed to facilitate charging and testing of refrigeration systems.
Furnished with flare cap on valve end.

Replacement Valve Cores
PART NO.   G6400

Wrench Caps
PART NO.   G6600

7025

VALVE CORE DEPRESSOR

For 1/4" male flares.

PART NO.	DESCRIPTION
7025	FOR 1/4" MALE FLARES

R-410A BRASS ADAPTER

Convert new R-410A system ports with 5/16" SAE connections to 1/4" SAE.

WORKS WITH R-410A

TE-BA01

PART NO.	MALE	FEMALE	OTHER	APPLICATION
TE-BA01	1/4" SAE	5/16" SAE	W/ CORE AND DEPRESSOR	R-410A INTERNATIONAL

R-410A 45° BRASS ADAPTER

Convert new R-410A system ports with 5/16" SAE connections to 1/4" SAE at 45°.

WORKS WITH R-410A

TE-BA0145

PART NO.	MALE	FEMALE	OTHER	APPLICATION
TE-BA0145	1/4" SAE	5/16" SAE	W/ CORE AND DEPRESSOR	R-410A INTERNATIONAL

OIL PUMPS

CHARGE-OIL PUMP

It charges without pumping the compressor down thus reducing charging time by over 70%. Also avoids the embarrassment of spilling oil on the customer's premises. Provides the professional touch since oil can be accurately measured into the compressor without having to pour it from the can. Fits all popular brands of refrigeration oil.

Complete Adapter Kit supplied to accommodate most containers. The Charge-Oil Pump cap seals the can so pump need not be removed until can is empty. The piston type high pressure pump is designed to operate at pressures to 250 PSI. Pumps one quart in 20 full strokes of the piston. Pump is connected to compressor by refrigerant charging line or copper tubing from 1/4" male fitting.
Suitable for use with alkybenzene and POE oils.

1702, 1703, 1751

PART NO.	DESCRIPTION
1702	Charge-Oil Pump
1703	Charge-Oil Pump for 5 Gallon Can

CHANGE-OIL PUMP
1751

1751 Change-Oil Pump is a companion to the 1702 Charge-Oil Pump. It has been designed for use in pumping oil from refrigeration compressors, marine engines, and other equipment where it is impossible to drain oil in the conventional manner. Removing oil from refrigeration compressors before dehydrating with vacuum is a necessity. Suction tube is 5/16" OD semi-rigid plastic, 15" long. Suction tubes up to 60" long can be used if necessary. Will not pump under pressure. Pumping capacity about 10 strokes per quart.

ADAPTERS & REPAIR KITS		
PART NO.	NAME	DESCRIPTION
1705	1702 & 1703 Repair Kit	Complete set of gaskets, bearings, rings, springs and washers for the repair of Imperial-Thermal oil pumps
1751RK	1751 Repair Kit	Complete set of gaskets, bearings, rings, springs and washers for the repair of Imperial-Thermal oil pumps
1768	Adapter Kit	Adapter kit for all popular cans and bottles of refrigerant oil. Kit contains 5 rings and one spacer to accommodate most oil containers
1770	Adapter Kit	Suction adapter for aluminum Charge-Oil Pump. Converts part no. 1702 Charge-Oil Pump into suction pump for refrigeration, marine and other similar applications where it is impossible to draw oil in the normal manner

KWIK-COUPLER ADAPTORS

TOOLS+ ◆ **Imperial**®

KWIK-COUPLER® REPAIR KITS

The Kwik-Coupler® adapter repair kit is intended for use with Imperial® brand 16-C, 17-C, 18-C and 19-C Kwik-Coupler® adapters and PolarShield® KC–Series hose. The male repair kit includes a threaded hex sleeve for replacement on straight coupler assemblies.

KCK-M Male Kwik-Coupler® Adapter Repair Kit - Repairs 2 Male Couplers

Includes: Hex Sleeve (2), Spring (2), Stem Assembly (2) and Sealant

REPAIR INSTRUCTIONS

1. Remove threaded sleeve on end of Kwik-Coupler® adapter. A vise may be necessary to remove old straight sleeve - the 90° has a screwdriver slot on back for removal.
2. Discard old stem and spring.
3. Use a wire brush to clean sealant residue from disassembled parts.
4. Insert new stem and spring.
5. Apply one bead of thread sealant completely around the thread. Do not apply an excessive amount of sealant - this may damage o-ring seal and cause leakage. Assemble to length at right (Fig. 1 & 2). For 90° style, engage threads until the bottom of the slot is even with the back of the coupler (Fig. 4).
6. Allow sealant to cure at least 30 minutes. The Kwik-Coupler® adapter is now ready to use.

KCK-F Female Kwik-Coupler® Adapter Repair Kit - Repairs 5 Standard and 5 Automotive Female Couplers (Not for 26-C and 27-C)

Includes: Retainer (2), Gasket (5), O-Ring (10) and O-Ring 3/16"for Automotive (5)

REPAIR INSTRUCTIONS

1. Insert tapered object (pen or pencil) and press against threaded retainer. Unscrew and remove retainer, sleeve and rubber seals.
2. Lubricate new seals and reassemble. Tighten retainer to zero clearance plus 1/8" turn. The Kwik–Coupler® adapter is now ready for use.

Figure 1
Assembly length 7/32"

Figure 2
Assembly length 7/32"

Figure 3
Hex sleeve

Figure 4
90° assembly

Figure 5
Sealant

Figure 6
Spring

Figure 7
Stem assembly

KCK-M Male Kwik-Coupler® Adapter Repair Kit
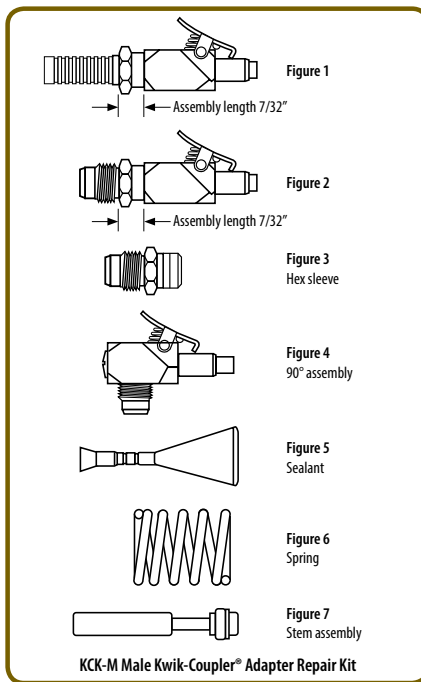
Standard Female Coupler

S8920071 Sleeve
S8920077 (small) Lubricate O-ring
S8920072 Retainer

S8920263 (large) O-ring for 3/16" Coupler
S8920073 1/4" SAE Coupler Gasket
Tapered Object
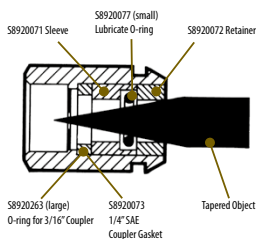
Accessory Side Female Coupler for non-core valve applications

S8920071 Sleeve
S8920077 (small) Lubricate O-ring
S8920072 Retainer
S8920073 Gasket
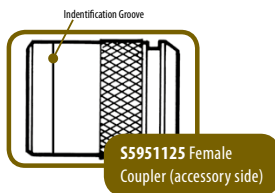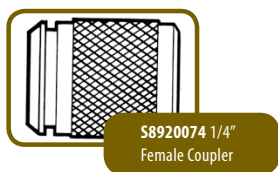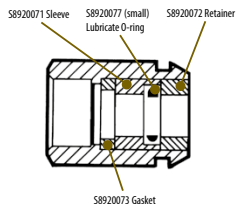
KWIK-COUPLER® ADAPTER REPLACEMENT PARTS

PART NO.	DESCRIPTION	USED ON
S8920071	Female Coupler 1/4" & 3/16"–Sleeve	16-C, 17-C, 18-C, 19-C
S8920072	Female Coupler 1/4" & 3/16"–Retainer	16-C, 17-C, 18-C, 19-C
S8920073	Female Coupler 1/4"–Gasket	16-C, 17-C, 18-C, 19-C
S8920074	Female Coupler 1/4"–Low Side	16-C, 17-C, 18-C, 19-C
S8920077	Female Coupler 1/4", 3/16" & 5/16"–O-Ring	16-C, 17-C, 18-C, 19-C
S8920263	Female Coupler 3/16"–O-Ring	19-C
S5951125	Female Coupler 1/4" –for Non-Core Valve Application	16-C, 17-C, 18-C, 19-C
KCK-F	Repair Kit For All Female Couplers	
KCK-M	Repair Kit For All Male Couplers	

S8920074 1/4" Female Coupler

Indentification Groove

S5951125 Female Coupler (accessory side)

REFRIGERANT CHARGING AND RECOVERY

TOOLS+

Imperial®

KWIK-VISE™
Refrigerant Recovery Tool

PT-109   Line piercing/refrigerant recovery tool pierces, seals and locks on to copper lines in one swift motion.

Self-adjusting! No need to adjust the tool for different sizes of tubing. The tension system automatically locks pliers on copper tubing 1/4" to 1/2" (6 mm-12 mm) O.D.

To use, simply position the PT-109 on the tubing to be pierced. Close the pliers quickly and firmly. The pliers will automatically adjust and lock into a tightly sealed, secure position.
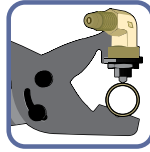
PT-109

Features

• Replaceable hardened, stainless steel pierce and brass valve assembly (S16002045).

• Capacity: 1/4" thru 1/2" O.D. refrigerant copper tubing.

• Durable: made with high-carbon, heat treated steel jaws.

• Works with all refrigerants CFC, HFC, HCFC and Zeotropic, Azeotropic.

• 90˚ elbow valve eliminates tangling and interference problems.

S16002045   Replacement pierce and brass valve assembly.

KWIK CHARGE®
Liquid Low Side Charger
Provides fast, safe charge - essential for today's blended refrigerants!

WORKS WITH
R-410A

The Kwik Charge® charging unit accepts liquid refrigerant from the cylinder and discharges into low side of the system. Charging rate is up to eight times faster than vapor charging. In addition, liquid charging is required when using R-410A and other blended refrigerants. Attach the Kwik Charge device to the low side of the charging manifold. Charging hose is connected from Kwik Charge device outlet to low side of refrigeration system. Internal metering element reduces liquid flow to a level below capacity of compressor. This assures a safe, fast charge without endangering the compressor. A built-in ball check valve automatically opens when drawing a vacuum to assure rapid, unrestricted evacuation. Can be used with all fluorinated hydrocarbon refrigerant systems.

535-C

CONNECTION TO MANIFOLDS
(connect all hoses as usual)

Features

• Up to 8 times faster than vapor charging.

• No need to heat refrigerant cylinder.

• Built-in check valve opens for drawing unrestricted vacuum.

• No pressure drop in cylinder.

• One charger services all units 1/2 ton or larger.

535-C   Kwik Charge® charging unit 1/4" female SAE flare inlet, 1/4" male SAE flare outlet.

2-Valve Connect Kwik Charge® charger to low side fitting. Arrow downward.
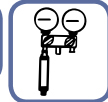
Can be connected to refrigerant cylinder rather than manifold.

4-Valve Unscrew end fitting & reverse, then connect to refrigerant fitting as shown (flow arrow on body points upward).
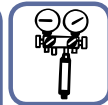
LINE SET BENDER

■ EASYBEND - AIRCO LINE SET BENDER
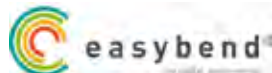
The "easy" soft copper bend!

Easybend is designed specifically for use as an internal pipe bender to offer the installer a fast, easy and kink and leak-free bend in soft copper linesets.

Reusable - just clean it off after use and store in the zip lock bag.

■ FEATURES

• Bends linesets when installing split systems
• Easiest way to bend twin tubes without damaging their insulation
• Reusable
• No need for springs or heavy equipment
• Only for soft copper

■ THE PACKAGE

• Red line
• Green line
• Yellow line
• Blue line

■ FAST AND EASY INSTALLATION

STEP 1
Insert the flexible bender of the right diameter into the copper tube.

STEP 2
bend to the required angle.
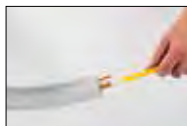
STEP 3
Retract the flexible bender.

STEP 4
These benders are reusable if wiped clean between installations.

HOW NOT TO USE!

Part code	Colour	Diameter	Length	Qty
EZB (4 colours per set)	Red	4mm (1/4")	4m (13')	15 sets per box
	Green	6mm (3/4")	4m (13')	15 sets per box
	Yellow	9mm (1/2")	4m (13')	15 sets per box
	Blue	12mm (5/8")	4m (13')	15 sets per box

MANIFOLDS

TOOLS+

| BOSCH | ROBINAIR | HYDRAULIC | SET |

RA 411744E300C
2-way manifold

TOOLS+

- 2-Way Manifold
- Available separately or as Set with hoses and carrying case
- Analog gauges ø 80 mm, oil filled, metal casing
- High pressure gauge 1 to 160 bar
- Low pressure gauge -1 to 100 bar
- Hose lenght 3 m
- Hose connection 1/4" SAE (7/16" UNF)
- PTFE hoses with stainless steel braid
- Working pressure 224 bar (-70 to 230 °C)
- Burst pressure 672 bar

Code	Description	Quantity
RA 411744E300C	Robinair 2-way manifold	1

SERVICE MANIFOLDS

IMPERIAL - HVAC&R SERVICE MANIFOLDS

Imperial deluxe service manifolds have rugged lightweight bodies, with laser-etched graphics. A proven diaphragm valve design allows finger-touch operation, with just one turn to fully open. Imperial gauges are non-flutter, with high visibility faceplates. Our manifolds also feature large knobs with a soft-touch grip surface. All spare parts are readily available.

DELUXE 4-VALVE

- The 3/8" vacuum port and oversized internal passages allow for 4-tiines faster evacuation than conventional manifolds
- Deep vacuum diaphragm-type soft-seat valves require only frnge1iip pressure to close completely or open for full-flow
- Precision class I 80rnrn gauges provide superior resistance to vibration and pulsation for accurate performance and extended gauge life
- PolarShield® Hi-Performance Hoses (800 PSI/WP, 4,000 PSI/BP) - not all rnodels include hose

Manifold only	36" hoses	60" hoses	72" hoses	Description
IMP-840C-PH	IMP-840C-36-PH	IMP-840C-60-PH	IMP-840C-72-PH	No Sight Glass, 80mm Gauges, Blue Body R410A, R32
IMP·848C-PH	IMP-848C-36-PH	IMP-848C-60-PH	IMP-848C-72-PH	No Sight Glass. 80mm Gauges, Blue Body R134A,R404A,R407C
IMP·849C-PH	IMP-849C-36-PH	IMP-849C-60-PH	IMP-849C-72-PH	No Sight Glass, 80mm Gauges, Blue Body R448A,R449A,R452C

DELUXE 2-VALVE, 4 & 5 PORT

- Precision engineering with dyna1nic full-flow valve design for faster evacuation and charging
- Dual 0-ring valve seals for long-life and trouble-free performance
- Precision gauges provide superior resistance to vibration and pulsation for accurate performance and extended gauge life
- Protective gauge boots shield against shock and vibration
- Ergonomic colour-coded soft-touch handles.
- PolarShield® Hi-Performance Hoses (800 PSI/WP, 4,000 PSI/BP) - not all models include hose.

(Model Shown: IMP-560CB) without hook

Manifold only	36" hoses	60" hoses	72" hoses	Description
IMP-540CB	IMP-540CB-36-PH	IMP-540CB-60-PH	IMP-540CB-72-PH	No Sight Glass. 4 Port 63mm Gauges. Silver Body (with Rubber Boots) R41 OA/R32
IMP-560CB	IMP-560CB-36-PH	IMP-560CB-60-PH	IMP-560CB-72-PH	With Sight Glass, 5 Port 63mm Gauges, Blue Body (with Rubber Boots) RI 34A/R404A/R407C

HOSES

IMPERIAL - POLARSHIELD HIGH-PERFORMANCE CHARGING HOSES

- Compatible with all I-IFC, HCFC & HFO refrigerants.
- Feature 800 PSI working pressure and 4,000 PSI burst pressure with a 5 to l safety factor
- Available with a variety of end connections, in yellow, red or blue, individually or in sets of three.

STANDARD HOSE SETS

36" hoses	60" hoses	72" Hoses	Description	Pack qty
IMP-803MRS	IMP-805MRS	IMP-806MRS	1 /4" x 1 /4" (red, yellow, blue)	Pack of 3
IMP-853MRS	IMP-855MRS	IMP-856MRS	1 /4" x 5/16"" (red, yellow, blue) R410A/R32	Pack of 3

SINGLE HOSES

36" hoses	60" hoses	72" Hoses	Description	Pack qty
IMP-803MRY	MP-805MRY	IMP-806MRY	1 /4" x 1 /4" (yellow)	Single
IMP-803MRR	IMP-805MRR	IMP-806MRR	1 /4" x 1 /4" (red)	Single
IMP-803MRB	IMP-805MRB	IMP-806MRB	1 /4" x 1 /4" (blue)	Single
IMP-853MRY	IMP-855MRY	IMP-856MRY	1 /4" x 5/16" (yellow) R410A/R32	Single
IMP-853MRR	IMP-855MRR	IMP-856MRR	1 /4" x 5/16" (red) R410A/R32	Single
IMP-853MRB	IMP-855MRB	IMP-856MRB	1 /4" x 5/16" (blue) R410A/R32	Single

VACUUM HOSES

36" hoses	72" Hoses	Description	Pack qty
IMP-536FTY	IMP-572FTY	3/8" x 3/8" (yellow)	Single

BALL VALVES

Part code	Description	Pack qty
IMP-800MBS	6" low loss ball valve adaptor hose 1/4" x 1/4"	Pack of 3

KWIK-COUPLER ADAPTORS

1/4"F x 1/4"M	5/16"F x 5/16" M	Description	Pack qty
IMP·16C	IMP-26C	Straight coupler (45° Flare)	Single
IMP-17C	IMP-27C	90° Elbow Coupler (45° Flare)	Single

Part code	Description	Pack qty
IMP-18C	Set includes IMP-16C and IMP-17C	Pack of 2
IMP·28C	Set includes IMP-26C and IMP-27C	Pack of 2
20128	1/4" to 5/16"' brass adaptor	Pack of 1

HOSE GASKETS

Part code	Description	Pack qty
IMP·S7958301	Hose gaskets for 1/4" hose	Pack of 10
IMP-S7958302	Hose gaskets for 3/8" hose	Pack of 10
IMP-S7958302	Hose gaskets for 5/16" hose	Pack of 10

SPARES

IMPERIAL SPARES
PRECISION REFRIGERANT GAUGES

The replacement gauges have high visibility colour-coded refrigerant scales. The unique design isolates the movement from the socket creating a superior shock resistance. The enhanced vibration dampening design cushions the movement for flutter-free performance and extended service life. With a superior pulsation resistance, after l O million cycles, these gauges show three times less wear than conventional gauges. The result is a longer lasting, more reliable gauge.

Part code	Description - 63mm (2-1/2")	Refrigerant	Colour	Pack qty
IMP-406CB	Single gauge 63mm (2-1/2")	R22, R41 0A, R407C - PSI, °C	Blue	Single
IMP-406CR	Single gauge 63mm (2-1/2")	R22, R41 0A, R407C - PSI, °C	Red	Single
IMP-407CB	Single gauge 63mm (2-1/2")	Rl 34A, R404A, R407C - PSI, Bar, °C	Blue	Single
IMP-407CR	Single gauge 63mm (2-1/2")	Rl 34A, R404A, R407C - PSI, Bar, °C	Red	Single
IMP-408CB	Single gauge 63mm (2-1/2")	R41OA - PSI, Bar, °C	Blue	Single
IMP-408CR	Single gauge 63mm (2-1/2")	R41OA - PSI, Bar, °C	Red	Single
IMP-420BCKP	Single gauge 63mm (2-1/2")	R134A, R404A, R22 - PSI, KPA. °C / °F	Blue	Single
IMP-420RCKP	Single gauge 63mm (2-1/2")	R134A, R404A, R22 - PSI, KPA. °C / °F	Red	Single
IMP-453CB	Single gauge 63mm (2-1/2")	R41 OA - PSI, kPa, °C	Blue	Single
IMP-453CR	Single gauge 63mm (2-1/2")	R41 OA - PSI, kPa, °C	Red	Single

Part code	Description - 80mm (3-1/8")	Refrigerant	Colour	Pack qty
IMP-406CB	Single gauge 80mm (3-1/8")	R22, R41 0A, R407C - PSI, °C	Blue	Single
IMP-406CR	Single gauge 80mm (3-1/8")	R22, R41 0A, R407C - PSI, °C	Red	Single
IMP-407CB	Single gauge 80mm (3-1/8")	Rl 34A, R404A, R407C - PSI, Bar, °C	Blue	Single
IMP-407CR	Single gauge 80mm (3-1/8")	Rl 34A, R404A, R407C - PSI, Bar, °C	Red	Single
IMP-408CB	Single gauge 80mm (3-1/8")	R41OA - PSI, Bar, °C	Blue	Single
IMP-408CR	Single gauge 80mm (3-1/8")	R41OA - PSI, Bar, °C	Red	Single
IMP-420BCKP	Single gauge 80mm (3-1/8")	R134A, R404A, R22 - PSI, KPA. °C / °F	Blue	Single
IMP-420RCKP	Single gauge 80mm (3-1/8")	R134A, R404A, R22 - PSI, KPA. °C / °F	Red	Single
IMP-453CB	Single gauge 80mm (3-1/8")	R41 OA - PSI, kPa, °C	Blue	Single
IMP-453CR	Single gauge 80mm (3-1/8")	R41 OA - PSI, kPa, °C	Red	Single

MANIFOLD REPLACEMENT PARTS

A range of manifold replacement parts are sold in single pack quantities of each item. If you would like more information on our manifolds please contact the sales department on +44(0)115 900 5858.

Part code	Description	Pack qty
IMP-406CB	Rubber Boots Kit - Blue & Red (63mm gauges only) - kit contains 1 x blue and 1 x red	Single
IMP-406CR	Manifold Diaphragm Repair Kit	Single
IMP-407CB	Replacement VAC & REF Knob Kit with Stems - Black and Yellow	Single
IMP-407CR	Replacement HI & LO Knob Kit with Sterns· Red and Blue	Single
IMP-408CB	Replacement VAC, REF, Ht, LO, Knob Kit with Stem and Diaphragm	Single
IMP-408CR	Replacement Hanging Hook	Single

SERVICE MANIFOLDS PARTS ILLUSTRATIONS

TOOLS+ | Imperial®

510 AND 520 SERIES 2-VALVE MANIFOLD

| (1) Knob | (12) Bonnet | (13) Neoprene O-Ring | (14) Stem w/ Nylon Tip | (15) Neoprene O-Rings |

(2) Knob

| (1) Knob | (5) Bonnet | (6) Stem | (7) Brass Washer | (8) Mylar Diaphragm | (9) Teflon Diaphragm | (10) Button Actuator | (11) Spring |
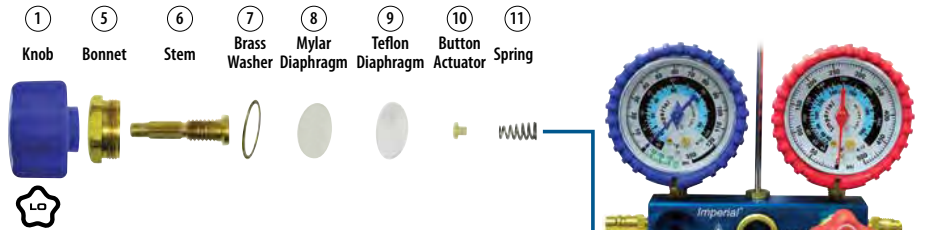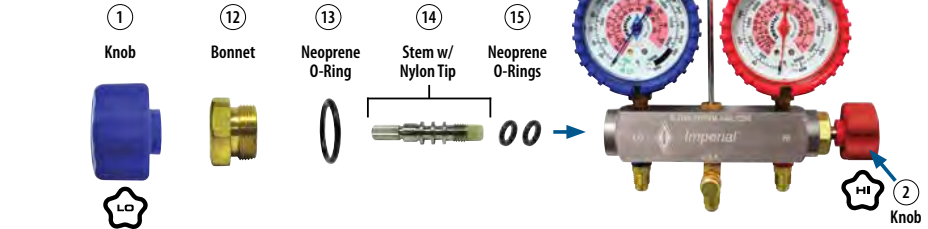
MANIFOLD REPAIR KITS AND REPLACEMENT PARTS LIST

PART NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
10SG																1			
405-RH *			1														1	1	1
405-RL *				1													1	1	1
500-RH *		1										1	1	1	2				
500-RL *	1											1	1	1	2				
600-R							2	2	2	2	2								
602-RK	1	1				2													
S64104										10									
S64108						10													
S64870										10	10								
S69021									10										
S76548				2															

* These kits are shipped completely assembled for quick & easy replacement.

(10SG) (16) | (2) Knob

(10SG) (16) | (2) Knob
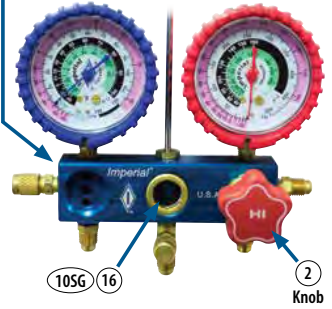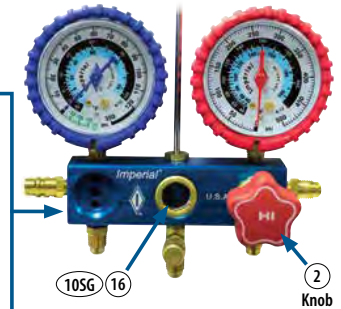
400 AND 300 SERIES 2-VALVE BRASS MANIFOLD

| (3) Knob | (17) Spacer | (18) Gland Nut | (19) Stem w/Nylon Tip and O-Rings |

(4) Knob
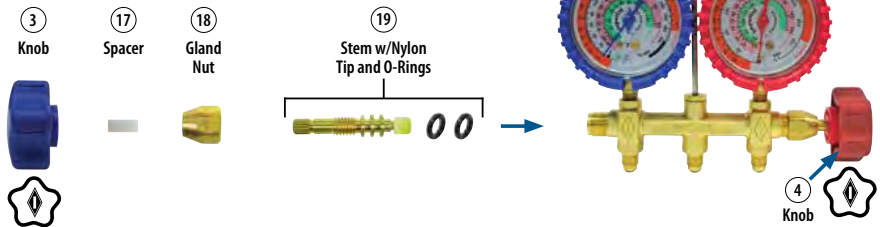
GAUGES & HOSES

PRECISION REFRIGERANT GAUGES

TOOLS+   ◆ Imperial®
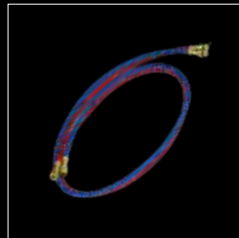
WITH HI-VISIBILITY COLOR-CODED REFRIGERANT SCALES

- **Superior Shock Resistance -** Our unique design isolates the movement from the socket, reducing the effects of shock.
- **Superior Vibration Resistance -** Our enhanced vibration dampening design cushions the movement for flutter-free performance and extended gauge service life.
- **Superior Pulsation Resistance -** After 10 million cycles, these gauges show three times less wear than conventional gauges. The result is a longer lasting, more reliable gauge.

Protective rubber boots for 2-1/2" gauges sold separately.

2-1/2" GAUGES

- **1/8" MNPT Connections**
- **3 : 2 : 3% Accuracy**
- **Replacement Screw-on Lens Set-** S8230301
- **Protective Red & Blue Rubber Boot Set -** 400-RB

PART NO.	DESCRIPTION	GAUGE CALIBRATION					TEMP	
		PSI	BAR	Kg/cm²	kPa	MPa	°F	°C
R-12, R-134a								
441-CB	Blue Compound	●				●		
441-CR	Red Pressure	●				●		
R-12, R-22, R-502								
323-CR	Red Pressure	●				●		
325-CB	Blue Compound	●				●		
405-CB	Blue Compound	●	●					●
405-CR	Red Pressure	●	●					●
423-CAM	Red Pressure			●				●
423-CAPD	Red Pressure				●			●
423-CK	Red Pressure				●			●
423-CKP	Red Pressure	●			●			●
423-CR	Red Pressure					●		●
425-CAM	Blue Compound			●				●
425-CAPD	Blue Compound				●			●
425-CB	Blue Compound	●				●		
425-CK	Blue Compound				●			●
425-CKP	Blue Compound				●			●
431-CM	Red Pressure	●		●			●	
432-CM	Blue Compound	●		●			●	
R-22, R-404A, R-410A								
422-CB	Blue Compound	●				●		
422-CR	Red Pressure	●				●		
R-32, R-410A *NEW*								
453-CB	Blue Compound	●			●			●
453-CR	Red Pressure	●			●			●

PART NO.	DESCRIPTION	GAUGE CALIBRATION					TEMP	
		PSI	BAR	Kg/cm²	kPa	MPa	°F	°C
R-22, R-407C, R-410A								
406-CB	Blue Compound	●						●
406-CR	Red Pressure	●						●
428-CKP	Blue Compound	●			●			●
429-CKP	Red Pressure	●			●			●
R-22, R-404A, R-507								
426-CKP	Blue Compound	●			●			●
427-CKP	Red Pressure	●			●			●
R-22, R-134a, R-404A								
420-BCKP	Blue Compound	●			●			●
420-RCKP	Red Pressure	●			●			●
424-CB	Blue Compound	●					●	
424-CR	Red Pressure	●					●	
R-134a								
434-BKP	Blue Compound	●			●		●	●
434-RKP	Red Pressure	●			●		●	●
R-134a, R-404A, R-407C								
407-CB	Blue Compound	●	●					●
407-CR	Red Pressure	●	●					●
R-134a, R-404A, R-507								
451-CB	Blue Compound	●					●	
451-CBM	Blue Compound			●	●			●
451-CR	Red Pressure	●					●	
451-CRM	Red Pressure			●	●			●
R-410A								
2423-P	Red Pressure			●		●		●
2425-CP	Blue Compound			●		●		●
408-CB	Blue Compound	●	●					●
408-CR	Red Pressure	●	●					●
452-CB	Blue Compound	●			●		●	●
452-CR	Red Pressure	●			●		●	●

80MM (3-1/8") *Class 1* GAUGES *NEW*

- **1/8" MNPT Connections**
- **1% Accuracy**

PART NO.	DESCRIPTION	GAUGE CALIBRATION					TEMP	
		PSI	BAR	Kg/cm²	kPa	MPa	°F	°C
R-404A, R-410A, R-22								
404-CB	Blue Compound	●					●	
404-CR	Red Pressure	●					●	
R-22, R-134a, R-404A								
458-CB	Blue Compound	●					●	
458-CR	Red Pressure	●					●	
R-407C, R-410A, R-22								
459-CB	Blue Compound	●					●	
459-CR	Red Pressure	●					●	
R-410A								
460-CB	Blue Compound	●					●	
460-CR	Red Pressure	●					●	

VAK-CHECK

For proper evacuation and dehydration of refrigeration and air-conditioning systems, an electronic vacuum gauge is an indispensable companion to a vacuum pump. Significant dehydration does not occur until a vacuum of 1000 microns or greater has been achieved. Use of electronic vacuum gauges is the only way to determine when dehydration is occurring and when it is complete.

Imperial-Thermal Engineering Vak-Checks are precision thermistor vacuum gauges designed especially for refrigeration and air-conditioning service. They automatically compensate for changes in ambient temperature and permit continuous monitoring during evacuation. These instruments are compact, lightweight, easy to use, and read directly in microns on a large easy-to-read meter.

VAK-CHECK
4501
Features
- Atmosphere to 10 microns.
- Ambient temperature compensated.
- Accuracy: 200-1000 microns: ±5%.
- Comes complete with Model 4510 Sensor.
- Battery powered, no searching for outlets (2 "D" cell batteries not included).

4501

SUPER VAK-CHECK II
14571
This analog thermistor vacuum gauge allows you to choose between 110AC and battery as your power source with the same features as the Model 4501.

Features
- AC/battery operated.
- Range: Atmosphere to 10 microns.
- Ambient temperature compensated.
- Complete with Model 4510 Sensor.
- Accuracy: 200-1000 microns ±5%.
- Power: 110AC or 2 "D" cell batteries (Batteries not included).

14571

REPLACEMENT VACUUM SENSORS
4510
Features
- Vacuum Sensor for Vak-Check and Super Vak-Check II.
- Models 4501 and 14571 with 0 to 50 calibration scale.

4510

VAC-SCALE

Saving the service technician time and money, Imperial-Thermal Engineering provides the ability to combine digital hand held vacuum gauge technology with strain gauge technology for refrigerant charging.

HANDHELD DIGITAL MICRON GAUGE
4775
Backed by more than 45 years of vacuum technology the 4775 borrows from the old while incorporating advanced new features including (7) units of measure, an LCD backlight, LCD contrast control, and a vacuum minimum/maximum function that stores the last vacuum reading in memory. Lightweight and easy to use, the 4775 will provide the discriminating service technician with a dependable instrument for accurately measuring vacuum in an air-conditioning or refrigeration system.

Features
- Ergonomic durable case.
- Auto shutoff.
- LCD backlight and contrast.
- Multiple units of measure.

4775

HI-PERFORMANCE CHARGING HOSES

TOOLS+ ◆ Imperial®

PolarShield® CHARGING HOSE
950, 900, 850 & 800 SERIES

WORKS WITH R-410A

® U L

- **All Imperial® PolarShield® charging hoses are UL recognized** and meet UL-1963, SAE-J2196 & EPA requirements for strength, pressure and refrigerant permeation.

- **Rugged, Multi-Refrigerant Nylon Barrier Construction -** PolarShield hoses are compatible with all CFC, HFC & HCFC refrigerants (R-410A, R-404A, R-407C, R-134a).

- **High-Pressure -** PolarShield hoses feature 800 PSI working pressure and 4,000 PSI burst pressure with a 5-to-1 safety factor.

- **Selection -** PolarShield hoses are available with a variety of end connections, in yellow, red or blue, individually or in sets of three. Consult factory for lengths and end connections not listed below.

800 PSI working pressure
4,000 PSI burst pressure

Durable neoprene cover

Flexible neoprene backing

Sturdy aramid
fiber reinforcement

Seamless nylon
barrier tube
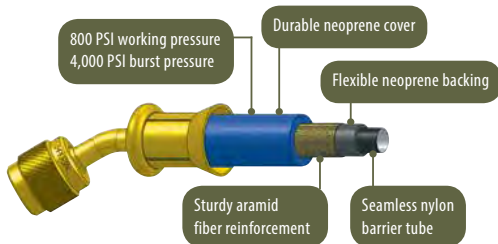
950 SERIES HOSES WITH LOW LOSS BALL VALVE SHUT-OFF AND 1/4" FFL* CONNECTIONS

LENGTH	BLUE	YELLOW	RED	SET OF THREE (B,Y,R)
3' (36")	953-MRB	953-MRY	953-MRR	953-MRS
5' (60")	955-MRB	955-MRY	955-MRR	955-MRS
6' (72")	956-MRB	956-MRY	956-MRR	956-MRS

*5/16" fittings available-contact factory for part numbers

WORKS WITH R-410A

The 950 Series PolarShield® multi-refrigerant charging & evacuation hoses feature low loss ball valve shut-off and durable hi-pressure barrier construction.

- UL recognized
- 800 PSI working pressure, 4,000 PSI burst pressure
- Works with all refrigerant gases including R-410A

900 SERIES PolarShield® HOSES WITH AUTOMATIC SHUT-OFF VALVE

Precision engineered automatic low loss 1/4" FFL* shut-off valve traps refrigerant within the hose to eliminate venting and finger burn.

900 SERIES HOSES - (1/4" FFL* CONNECTIONS WITH AUTOMATIC SHUT-OFF ON ONE END)

LENGTH	BLUE	YELLOW	RED	SET OF THREE (B,Y,R)
3' (36")	903-MRB	903-MRY	903-MRR	903-MRS
5' (60")	905-MRB	905-MRY	905-MRR	905-MRS
6' (72")	906-MRB	906-MRY	906-MRR	906-MRS

*5/16" fittings available-contact factory for part numbers

850 SERIES PolarShield® HOSES FOR R-410A SYSTEMS
WITH 5/16" ACCESS FITTINGS (1/4" x 5/16" hose connections)

LENGTH	BLUE	YELLOW	RED	SET OF THREE (B,Y,R)
3' (36")	853-MRB	853-MRY	853-MRR	853-MRS
4' (48")	854-MRB	854-MRY	854-MRR	854-MRS
5' (60")	855-MRB	855-MRY	855-MRR	855-MRS
6' (72")	856-MRB	856-MRY	856-MRR	856-MRS

800 SERIES PolarShield® HOSES
WITH STANDARD 1/4" FITTINGS*

LENGTH	BLUE	YELLOW	RED	SET OF THREE (B,Y,R)
3' (36")	803-MRB	803-MRY	803-MRR	803-MRS
4' (48")	804-MRB	804-MRY	804-MRR	804-MRS
5' (60")	805-MRB	805-MRY	805-MRR	805-MRS
6' (72")	806-MRB	806-MRY	806-MRR	806-MRS
8' (96")	808-MRB	808-MRY	808-MRR	808-MRS
12' (144")	812-MRB	812-MRY	812-MRR	812-MRS

*5/16" fittings available-contact factory for part numbers

WORKS WITH R-410A

805-MRS

HI-PERFORMANCE CHARGING HOSES

TOOLS+   Imperial®

3/8" EVACUATION HOSE WITH 3/8" SAE SWIVEL CONNECTION

For faster evacuation and charging

3/8" hose in four lengths for larger jobs or applications where reduced service time is desired. 3/8" swivel ends. Eight-crimp ferrules. Available in yellow.

LENGTH	YELLOW
3' (36")	536-FTY
4' (48")	548-FTY
5' (60")	560-FTY
6' (72")	572-FTY

HOSE REPLACEMENT PARTS

S7958301	1/4" Hose Seal Gasket.
S7958302	3/8" Hose Seal Gasket.
S8921626	Brass Core Depressor.
S10000265	1/2" ACME & 5/16" Hose Seal Gasket.

6" LOW LOSS BALL VALVE ADAPTER HOSES

1/4" SAE 45° female x 1/4" SAE male straight fittings

Connects to any 1/4" SAE charging line. Non-restrictive for maximum flow. UL recognized - environmentally safe.

LENGTH	BLUE	YELLOW	RED	SET OF THREE (B,Y,R)
6"	800-MBB	800-MBY	800-MBR	800-MBS

800-MBS

WORKS WITH R-410A

200 SERIES PolarShield® HOSE SETS FOR R-410A

(5/16" x 5/16" hose connections)

LENGTH	SET OF THREE (B,Y,R)
3' (36")	203-MRS
5' (60")	205-MRS
6' (72")	206-MRS

800 PSI Working Pressure; 4,000 PSI Burst Pressure

200 SERIES PolarShield® HOSE SETS FOR R-410A

B, R - 1/4" x 5/16" hose connections
Y - 1/4" x 1/4" hose connection

LENGTH	SET OF THREE (B,Y,R)
3' (36")	213-MRS
4' (48")	214-MRS
5' (60")	215-MRS
6' (72")	216-MRS

800 PSI Working Pressure; 4,000 PSI Burst Pressure

600 SERIES PREMIUM CHARGING HOSE

(1/4" x 1/4" hose connections)

LENGTH	SET OF THREE (B,Y,R)
3' (36")	603-MRS
5' (60")	605-MRS
6' (72")	606-MRS
12' (144")	612-MRS

600 PSI Working Pressure; 3,000 PSI Burst Pressure

HOSE CONVERSION ADAPTERS

The Imperial-Thermal Engineering conversion adapter consists of a compact ball valve that is ideal for retrofitting standard refrigerant hoses, providing instant refrigerant shut off capabilities. Available in standard 1/4" and 5/16" sizes for R-410A.

Imperial® THERMAL ENGINEERING COMPANY
DEPENDABLE UNDER PRESSURE®

PART NO.	DESCRIPTION
TE-BV01R	1/4 SAE X 1/4 F SAE
TE-BV01Y	1/4 SAE X 1/4 F SAE
TE-BV01B	1/4 SAE X 1/4 F SAE
TE-BV01-3	1/4 SAE X 1/4 F SAE, SET OF 3
TE-BV02R	1/4 SAE X 5/16 F SAE
TE-BV02Y	1/4 SAE X 5/16 F SAE
TE-BV02B	1/4 SAE X 5/16 F SAE
TE-BV02-3	1/4 SAE X 5/16 F SAE, SET OF 3

WORKS WITH R-410A

GET IN. GET OUT.
GET ON TO
THE NEXT JOB.

Flaring and swaging is a big part of the job. That's why we made a big effort to guarantee you get a precise flare and swage every time. Convenience and comfort both come standard throughout hilmor's full line of flaring and swaging tools. Simply choose the tool that fits your needs, and get ready to conquer your next job.

HILMOR RANGE

REFRIGERATION HOSES WITH BALL VALVE ENDS

TOOLS+

Our retooled hoses includes an easy turn valve for added control of refrigerant loss. Features an extra abrasion-resistant layer for superior protection in tough conditions. All of our hoses are rated for 800 PSI working pressure to work with the newest high-pressure refrigerants.

Minimize Refrigerant Loss
Easy-turn valve for added control of refrigerant loss.

Handles High Pressure
Rated for 800 PSI working pressure to work with high-pressure refrigerants.

Small Space Capable
A compact design allows it to be used even in cramped spaces.

Product Specifications

Item Number	Product Descriptions	Diameter
1935917	H48BVES3 Set of 3 - 48"	1/4"
1935918	H48BVEBV Vacuum - 48"	3/8"
1935924	H60BVES3 Set of 3 - 60"	1/4"
1935925	H60BVES4 Set of 4 - 60"	1/4" & 3/8"
1935926	H60BVEBV Ball Valve - 60"	3/8"

Maximum Allowable Working Pressure	800 PSI	
Burst Pressure	4000 PSI	
Operating Temperature	-20° F to 180° F	
End Connection	Straight by 45°	
Dimensions		
Weight	1.8 lbs.	1.0 lb.

Refrigeration Hoses with Ball Valve Ends
1935917

COMPACT BENDER KITS

TOOLS+

1839032 Compact Bender Kit

Body and crossbar for 1/4" to 7/8", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" and 7/8" mandrels.

1926598 Compact Bender Kit with Reverse Bending Attachment

Body and crossbar for 1/4" to 7/8", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8" mandrels and Reverse Bending Attachment.

Simple Setup
Universal crossbar and color-coded mandrels make identifying and changing sizes quick and easy.

One-handed Operation
A ratcheting mechanism and innovative release lever allow for bending with one hand.

Small Space Capable
A compact design allows it to fit where others can't.

Product Specifications

Item Numbers	1839032	1926598
Product Descriptions	CBK	CBKRB
Tube Sizes (O.D.)	1/4", 5/16"	

Dimensions

Length	16-3/8"	16-3/8"
Width	12-1/4"	12-1/4"
Height	3-1/4"	3-1/4"
Weight	8.8 lbs.	10.8 lbs.

Replacement Parts	
Descriptions	Item Number
CBRBM Rev Bend Att	1890999

Tube Materials	Soft Tubing Only Copper, Steel, Aluminum, Brass

A reverse bending attachment for bends in the opposite direction.

A ratcheting lever gives you the brawn to bend tubes with one hand.

A quick-release button allows you to free the tube with ease and without damage.

A locking slider keeps the bender compact for storage and transport.

hilmor

TRI-TUBE BENDERS

TOOLS+

From start to final bend, the hilmor Tri-Tube Benders have you covered.

Precise Angles
Calibrated markings for making accurate bends up to 180°.

Comfortable Grip
Non-slip grip.

Lighten Your Load
Constructed out of lightweight die-cast aluminum.

Indexing Handle
Compact design for tight access. (1839026 only)

Product Specifications

Item Numbers	1839026	1839027
Product Descriptions	TB31638	TB31612
Tube Sizes (O.D.)	3/16", 1/4", 5/16", 3/8"	3/16", 1/4", 3/8", 1/2"

Dimensions

Length	2-1/2"	3-1/2"
Width	6"	7-1/2"
Height	12-1/2"	7"
Weight	1.8 lbs.	2.5 lbs.

Tube Materials	Soft Tubing Only Copper, Steel, Aluminum, Brass

Tri-Tube Bender
1839027

Tri-Tube Bender
1839026

PREMIUM TOOL RANGE

PROMAX

BOSCH

ROBINAIR

TIF

BOSCH RANGE
PAGE 137

RELY ON THE BEST!

DIVERSITECH ®
INTERNATIONAL

HILMOR RANGE

HIL-CM TUBE BENDER

hilmor

TOOLS+

Capacities
CM35
15, 22, 28 & 35mm copper to BS2871.
15, 22 & 28mm mild steel to BS4182.
15, 22 & 28mm stainless steel to BS4127

Precise Angles
180° Calibrated markings for making accurate bends up to 180°.

Comfortable Grip
Non-slip grip.

Lighten Your Load
Constructed out of lightweight die-cast aluminum.

Model	Description
HIL- CM35-MO	CM35 Frame only
HIL-CM35-15 to 28	CM35 Frame 15mm, 22mm and 28mm Former and Guides
HIL-CM35-IMP-7/8 to 1-1/8	CM35 Frame 7/8" and 1-1/8" Former and Guides

Model	Description
HIL- EL25-MO	EL25 Machine and Vice
HIL- EL25-20-25	EL25 Machine, Vice, 20mm and 25mm Formers

Part code	Description
Kits	
HIL-CM35-15-28	A Frame Bender 15, 22 & 28mm formers and guides
HIL-CM35-7/8-1 1/8	A Frame Bender 7/8" & 1 1/8" formers and guides
Parts	
HIL-CM35-15DISC	15mm Former Disc
HIL-CM35-22DISC	22mm Former Disc
HIL-CM35-28DISC	28mm Former Disc
HIL-CM35-7/8DISC	7/8" Former Disc
HIL-CM35-1-1/8DISC	1 1/8" Former Disc
HIL-CM35-15GUIDE	15mm GUIDE
HIL-CM35-22GUIDE	22mm GUIDE
HIL-CM35-28GUIDE	28mm GUIDE
HIL-CM35-7/8GUIDE	7/8" GUIDE
HIL-CM35-1-1/8GUIDE	1 1/8" GUIDE

hilmor

HIL-GLM-15-22 HAND TUBE BENDER

TOOLS+

180° **Precise Angles**
Calibrated markings for making
accurate bends up to 180°.

Comfortable Grip
Non-slip grip.

Lighten Your Load
Constructed out of lightweight
die-cast aluminum.

Model	Description
HIL-GLM-15-22	HIL-GLM-15-22

hilmor

ORBITAL FLARE

TOOLS+

The hilmor Orbital Flare was designed to produce quality flares – again and again. A tube-stop arrow allows precise positioning and placement so you can keep that nickel in your pocket. Plus, a clutch mechanism stops the flare to eliminate cracking the tube.

Precise Flares, Every Time
An off-center mounted cone spins on an axis to effectively produce quality flares.

No Cracked Tubes
A clutch mechanism stops the flaring when the job is done.

Simple Setup
A clothespin-inspired, spring-loaded block grips the tube securely.

Easy to Position
A tube-stop arrow slides to set correct height and positioning while ball detents allow for easy flaring cone alignment.

Product Specifications

Item Number	1838952
Product Description	FTO
Tube Sizes (O.D.)	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"

Dimensions	
Length	8-1/2"
Width	4-5/8"
Height	5-1/4"
Weight	3.8 lbs.

Tube Materials	Soft Tubing Only Copper, Steel, Aluminum, Brass
Flare Type	45 degree

A clutch mechanism stops the flare when the job is done to eliminate cracking the tube.

An off-center mounted cone helps to uniformly shape the tube.

Orbital Flare
1838952

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FLARING AND SWAGING

hilmor

QUICK-ENGAGE FLARE AND SWAGE KIT

TOOLS+

Extra appendages are hard to come by these days. Instead, opt for the all-new hilmor Quick-Engage Flare and Swage. Simple setup, precise positioning and a secure hold allow you to quickly conquer and move on to the next job.

Less Work
Allows for faster flares and swages because it requires fewer rotations.

Simple Setup
A clothespin-inspired, spring-loaded block grips the tube securely.

Easy to Position
A tube-stop arrow slides to set correct height and positioning, while ball detents allow for easy flaring cone alignment.

Product Specifications

Item Number	1838947
Product Description	FS
Tube Sizes (O.D.)	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"

Dimensions

Length	8-1/2"
Width	4-5/8"
Height	7-1/2"
Weight	3.5 lbs.

Tube Materials	Soft Tubing Only Copper, Steel, Aluminum, Brass
Flare Type	45 degree

Kit Contents

1 Bar, 1 Quick-Engage Yoke, 1 Flare Cone 3/16" to 3/4", 5 Swage Heads

Ball detents ensure proper and precise alignment to guarantee a perfect flare or swage every time.

Push down the yoke and with fewer rotations, you get a precise flare or swage.
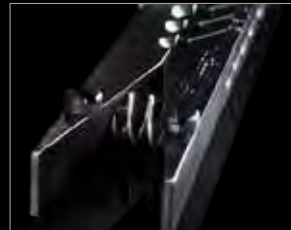
An innovative spring-loaded block holds the tube firmly in place.

hilmor

COMPACT SWAGE TOOL KIT

TOOLS+

The new hilmor Compact Swage Tool is taking swaging to the next level. It has the power to swage 2-1/8" tubing and the control to swage 1/4" tubing without a crack. With its small, pistol-shape design, it can fit in the smallest of spaces. This proprietary design can reduce on-the-job fatigue with its easy setup and one-handed operation made possible by an innovative hydraulic mechanism and release button. It's even equipped for multiple sizes.

Picture-perfect Swaging
Simply select the correct head, place it on the tool and make a quality swage.

Less Effort, More Control
The power to swage 1-5/8" tubing and the control to swage 5/16" without splitting the tube.

Small Space Capable
A compact design allows it to be used even in cramped spaces.

One-handed Operation
The lever mechanism and release button allow for one-handed swaging without the fatigue.

Compact Swage Tool Kit
1839015

Product Specifications

Compact Swage Tool Kit	
Item Number	1839015
Product Description	CS
Kit Contents	3/8", 1/2", 5/8", 3/4", 7/8" Expander Heads, Deburrer, Compact Swage Tool
Tube Sizes (O.D.)	3/8", 1/2", 5/8", 3/4", 7/8"

Dimensions	
Length	9"
Width	1-3/4"
Height	5"
Weight	8.5 lbs

Expander Heads & Replacement Parts

Item Numbers	Descriptions	Sizes
1964042	CSEH14 Expander Head	1/4"
1839016	CSEH516 Expander Head	5/16"
1839017	CSEH38 Expander Head	3/8"
1839018	CSEH12 Expander Head	1/2"
1839019	CSEH58 Expander Head	5/8"
1839020	CSEH34 Expander Head	3/4"
1839021	CSEH78 Expander Head	7/8"
1839022	CSEH118 Expander Head	1-1/8"
1839023	CSEH138 Expander Head	1-3/8"
1839024	CSEH158 Expander Head	1-5/8"
1964043	CSEH218 Expander Head	2-1/8"
1839025	CSB Compact Swage Body Kit	N/A
1891258	Pocket Size Deburring Tool	N/A

Tube Materials	Soft Tubing Only, Copper, Steel, Aluminum, Brass
Recommended Replacement Hydraulic Fluid	HV-15
Recommended Expander Head Lubricant	NLGI1 or NLGI2

hilmor

DELUXE COMPACT SWAGE TOOL KIT

TOOLS+

Thoughtfully designed to fit into the smallest of spaces, the hilmor Compact Swage Tool can knock out the picture-perfect swage in just one shot. An innovative hydraulic mechanism and release button let you take care of any job single-handedly.

Picture-perfect Swaging
Simply select the correct head, place it on the tool and make a quality swage.

One-handed Operation
The lever mechanism and release button allow for one-handed swaging without the fatigue.

Product Specifications

Deluxe Compact Swage Tool Kit	
Item Number	1964041
Product Description	DCS
Deluxe Kit Contents	1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8", 1-3/8", 1-5/8" Expander Heads, Pocket Size Deburring Tool, Compact Swage Tool
Tube Sizes (O.D.)	1/4", 5/16", 3/8", 1/2", 5/8", 3/4",7/8", 1-1/8", 1-3/8", 1-5/8"

Dimensions	
Length	9"
Width	1-3/4"
Height	5"
Weight	8.5 lbs

Additional Expander Heads

Item Numbers	Descriptions	Sizes
1964042	CSEH14 Expander Head	1/4"
1964043	CSEH218 Expander Head	2-1/8"

Deluxe Compact Swage Tool Kit
1964041

hilmor

SMALL DIAMETER TUBING CUTTERS

TOOLS+

When you're in a tight space, this tool can definitely cut it. hilmor's ruggedly durable Small Diameter Tubing Cutters offer precision cuts with minimal burrs.

Rugged and Durable
An ergonomic, cast-zinc body and shock-resistant steel wheel reduce burrs while increasing life and durability.

Small Space Capable
Compact design allows this tool to fit where others can't.

Maximum Protection
A full-stop threading system offers maximum protection for cutting wheels.

Precision Flare Cutting
A flare-cutting groove allows for precision removal of material. Item 1885383 only.

Spare Blade Storage
A bonus blade comes with the tool and can be stored easily in the handle. Items 1885382 & 1885383 only.

Product Specifications

Item Numbers	1885381	1885382
Product Descriptions	TC1858	TC181
Diameters	1/8" - 5/8"	1/8" - 1"
Dimensions		
Length	1-3/8"	1-3/4"
Width	3/4"	3/4"
Height	1-3/4"	2-3/8"
Weight	4 oz.	6 oz.

Item Number	1885383
Product Description	TC18118 TC
Diameter	1/8" - 1-1/8"
Dimensions	
Length	2"
Width	1"
Height	3"
Weight	8 oz.

Small Diameter Tubing Cutters
1/8"- 5/8", 1/8"- 1", 1/8"- 1-1/8"
1885381, 1885382, 1885383

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LARGE DIAMETER TUBING CUTTERS

TOOLS+

This cutter can talk the talk without walking the walk. hilmor's Large Diameter Tubing Cutters feature a four-roller tracking system to keep the tube from threading. All the while, a shock-resistant steel wheel cuts through the tube like a knife through butter.

Rugged and Durable
An ergonomic, cast-zinc body and shock-resistant steel wheel reduce burrs while increasing life and durability.

Precision Flare Cutting
A flare-cutting groove allows for precision removal of material.

Maximum Protection
A full-stop threading system offers maximum protection for cutting wheels.

Spare Blade Storage
A bonus blade comes with the tool and can be stored easily in the handle.

Accurate Cutting
A unique, four-roller tracking system keeps the tube from threading.

Professional Deburring
Conveniently deburr tubes with a replaceable machinist's reamer.

Quick on the Job
Quick-action ratcheting helps you get the job done in a snap. Item 1885385 only.

Product Specifications

Item Numbers	1885384	1885385
Product Descriptions	TC18138	TC18134
Diameters	1/8" - 1-3/8"	1/8" - 1-3/4"
Dimensions		
Length	2-3/4"	3"
Width	1-3/4"	1-3/4"
Height	6-1/4"	7-7/8"
Weight	1.4 lbs.	1.7 lbs.

Accessories	
Item Number	1885386
Product Description	Small Tubing Cutter Wheels 2PK Fits hilmor Tubing Cutters: 1885381, 1885382
Item Number	1885387
Product Description	Tubing Cutter Wheels 2PK Fits hilmor Tubing Cutters: 1885383, 1885384, 1885385
Item Number	21024TCD
Product Description	Replacement Deburrer for 1885384 and 1885385

Large Diameter Tubing Cutters
1/8"-1-3/8" and 1/8"-1-3/4"
1885384, 1885385

HILMOR RANGE

hilmor

PLASTIC TUBING CUTTER

TOOLS+

We've cut out the unnecessary complexity so you can cut plastic. hilmor's Plastic Tubing Cutter gets the job done with ease. Simple design and intuitive features allow you to get a handle on any cut.

Rugged and Durable
An ergonomic, cast-aluminum body and stainless steel blade increase life and durability.

Comfortable Grip
A rubberized handle makes it easier to use in wet and dirty environments.

Easy to Open and Close
A conveniently positioned locking latch allows for true one-handed operation.

Product Specifications

Item Number	1885388
Product Description	PTC Plastic Tube Cutter
Diameter	1-5/16" MAX OD

Dimensions

Length	11"
Width	5-1/2"
Height	1-2/5"
Weight	13 oz.

Replacement Blade

Item Number	1885390
Product Description	PTCRB Plastic TC Rep Blade

A stainless steel blade gives you the strength and precision for any cut.

Plastic Tubing Cutter
1-5/16" MAX OD
1885388

hilmor

RATCHETING PLASTIC TUBING CUTTERS

TOOLS+

Rugged and Durable
An ergonomic, cast-aluminum body and stainless steel blade increase life and durability.

Comfortable Grip
A rubberized handle makes it easier to use in wet and dirty environments.

Easy to Open and Close
A conveniently placed release button allows for true one-handed operation, while a locking tab secures the blade in place.

Product Specifications

Item Number	1885393
Product Description	RPTC158
Diameter	1-5/8" MAX OD

Dimensions

Length	9"
Width	1-1/8"
Height	4-1/8"
Weight	1.0 lbs.

Replacement Blade

Item Number	1885394
Product Description	RPTC158RB Rat TC Rep Blade

Ratcheting Plastic Tubing Cutter
2-3/8" MAX OD
1885395

Ratcheting Plastic Tubing Cutter
1-5/8" MAX OD
1885393

Rugged and Durable
An ergonomic, cast-aluminum body and high-carbon steel blade increase life and durability.

Easy to Open
Simply pull both handles apart to quickly start the next cut.

Product Specifications

Item Number	1885395
Product Description	RPPTC238
Diameter	2-3/8" MAX OD

Dimensions

Length	13-1/8"
Width	1-1/3"
Height	6"
Weight	2.5 lbs.

Replacement Blade

Item Number	1885396
Product Description	RPTC238RB Rat TC Rep Blade

hilmor

KEYSTONE TIP & CABINET TIP SCREWDRIVERS

TOOLS+

Driven to perform. Everything about these screwdrivers says get work done. They're designed to last with a heat-treated, chrome-plated shaft, yet they wouldn't dare strip out your screws.

More Torque
A slip-resistant grip allows for maximum leverage.

Quick Identification
Easy-to-read tip markings on the handle make identification quick and easy.

Rugged and Durable
Designed to last with a heat-treated, chrome-plated shaft.

8" Keystone Tip Screwdriver 3/8"
1891286

6" Cabinet Tip Screwdriver 1/4"
1891289

Product Specifications

KEYSTONE TIP SCREWDRIVERS

Item Numbers	1891355	1891352	1891356	1891358	1891286
Product Descriptions	SDSLKTRS14112	SDSLKTSS144	SDSLKTRS144	SDSLKTRS5166	SDSLKTRS388
Shaft Length	1-1/2"	4"	4"	6"	8"
Tip Type/Size	1/4"	1/4"	1/4"	5/16"	3/8"
Dimensions					
Length	3-1/2"	8-1/8"	8"	10-1/2"	12-1/2"
Width	1-1/4"	1"	1-1/8"	1-1/4"	1-3/8"
Height	1-1/4"	1"	1-1/8"	1-1/4"	1-3/8"
Weight	2 oz.	4 oz.	4 oz.	6 oz.	8 oz.

CABINET TIP SCREWDRIVERS

Item Numbers	1891287	1891288	1891289
Product Descriptions	SDSLCTRS3163	SDSLCTRS3166	SDSLCTRS146
Shaft Length	3"	6"	6"
Tip Type/Size	3/16"	3/16"	1/4"
Dimensions			
Length	6-1/2"	9-1/2"	10-1/4"
Width	1"	1"	1"
Height	1"	1"	1"
Weight	3 oz.	3 oz.	4 oz.

TERMINAL BLOCK SCREWDRIVER

TOOLS+

A unique screw calls for a unique screwdriver. The Terminal Block Screwdriver is one-of-a-kind with a heat-treated shaft and super-comfortable grip.

More Torque
A slip-resistant grip allows for maximum leverage.

Quick Identification
Easy-to-read tip markings on the handle make identification quick and easy.

Rugged and Durable
Designed to last with a heat-treated, chrome-plated shaft.

Secure Fit
A machined tip allows for a better fit.

Product Specifications

Item Number	1891397
Product Description	SDTB4
Shaft Length	4"
Tip Type/Size	Terminal Block

Dimensions

Length	7-1/8"
Width	7/8"
Height	1"
Weight	2 oz.

Terminal Block Screwdriver 4"
1891397

PHILLIPS TIP SCREWDRIVERS

Forget screws that won't strip. You need a screwdriver that won't strip them. Introducing the hilmor Phillips Tip Screwdriver featuring machined tips for a precise fit. A rugged shaft and comfortable handle round out this tool nicely.

More Torque
A slip-resistant grip allows for maximum leverage.

Quick Identification
Easy-to-read tip markings on the handle make identification quick and easy.

Rugged and Durable
Designed to last with a heat-treated, chrome-plated shaft.

Secure Fit
A machined tip allows for a better fit.

Product Specifications

Item Numbers				
1891290	1891391	1891392	1891393	1891394
Product Descriptions				
SDPHRS13	SDPHRS2	SDPHRS24	SDPHRS27	SDPHRS36
Tip Type/Size				
#1PH	#2PH	#2PH	#2PH	#3PH
Shaft Length				
3"	1-1/2"	4"	7"	6"

Dimensions

Length				
6-1/2"	3-1/2"	8"	11"	10-1/2"
Width				
1"	1-1/4"	1"	1"	1-1/4"
Height				
1"	1-1/4"	1"	1"	1-1/4"
Weight				
3 oz.	2 oz.	4 oz.	5 oz.	6 oz.

#1 Phillips Tip Screwdriver 3"
1891290

SCREWDRIVERS

hilmor

PRECISION SCREWDRIVER SET

TOOLS+

When the job calls for precision, reach for hilmor. The Precision Screwdriver Set features machined tips and rotating heads. Plus, a convenient storage pouch keeps you organized.

Comfortable Grip
Over-molded handles reduce hand fatigue and won't slip or twist.

Maximum Precision
A rotating head allows for precise adjustments while giving you greater control.

Quick Identification
Easy-to-read tip markings on the handle make identification quick and easy.

Storage
Pouch included for quick and easy storage.

Product Specifications

Item Number	1891089
Product Description	SDPS
Includes	
	1/16" x 2" Slotted
	#0 x 3" Phillips
	3/32" x 3" Slotted
	1/8" x 4" Slotted
	1/8" x 6" Slotted

Dimensions

Length	10-1/4"
Width	5"
Height	1/8"
Weight	10 oz.

Includes storage pouch.

Tip markings for quick identification.

Precision Screwdriver Set
1891089

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SCREWDRIVER SETS

TOOLS+

Tip markings on the handle for quick ID. Heat-treated shafts for extra durability. There are thousands of screwdrivers to choose from, but only one set says hilmor. Available in 5-piece or 7-piece sets.

More Torque
A slip-resistant grip allows for maximum leverage.

Quick Identification
Easy-to-read tip markings on the handle make identification quick and easy.

Rugged and Durable
Designed to last with a heat-treated, chrome-plated shaft.

Secure Fit
A machined tip allows for a better fit.

Product Specifications

Item Numbers	1891087	1891088
Product Descriptions	SD5PC	SD7PC
Includes 5-piece Set	#2 Phillips Tip Round Shank 4" 3/16" Cabinet Tip Round Shank 6" 1/4" Cabinet Tip Round Shank 6" 1/4" Keystone Tip Square Shank 4" 5/16" Keystone Tip Round Shank 6"	
7-piece Set	#1 Phillips Tip Round Shank 3" #2 Phillips Tip Round Shank 4" 3/16" Cabinet Tip Round Shank 3" 3/16" Cabinet Tip Round Shank 6" 1/4" Cabinet Tip Round Shank 6" 1/4" Keystone Tip Square Shank 4" 5/16" Keystone Tip Round Shank 6"	

Dimensions

Length	10-1/4"	10-1/2"
Width	1-1/4"	1-1/4"
Height	1-1/4"	1-1/4"
Weight	1.4 lbs.	1.7 lbs.

5-piece Screwdriver Set
1891087

7-piece Screwdriver Set
1891088

9 IN 1 MULTI-TOOL

TOOLS+

When you've got a lot of jobs but not a lot of time, the 9 in 1 Multi-Tool from hilmor can save the day. It features a slip-resistant grip for more torque and a thick-walled shaft for more durability.

Rugged and Durable
Designed with thick shaft walls for long life and less stripping.

More Torque
A slip-resistant grip allows for maximum leverage.

Product Specifications

Item Numbers	1839053	1937819
Product Descriptions	9IN1SV	MT9IN16
Bit Sizes	#1 & #2 Phillips, 3/16" & 1/4" Slotted, #2 Square, 1/4", 5/16", and 3/8" Nut Drivers, and Valve Core Remover.	

Dimensions

Length	7-1/4"	10-1/2"
Width	1-1/3"	1-1/8"
Height	1-1/3"	1-1/8"
Weight	7 oz.	10 oz.

9 In 1 Multi-Tool
1839053

6 IN 1 STUBBY MULTI-TOOL

Small spaces come standard in HVAC/R. That's why you need the hilmor 6 in 1 Stubby Multi-Tool. Its compact design fits right in, giving you the necessary torque to tighten or loosen a screw or nut.

Small Space Capable
A compact design allows for use in tight spaces.

More Torque
A slip-resistant grip allows for maximum leverage.

Simple Setup
Easily change between six different drivers – 3/16" and 1/4" Slotted, #1 and #2 Phillips, 1/4" and 5/16" Nut Drivers.

Product Specifications

Item Number	1891351
Product Description	MTS
Bit Sizes	3/16" and 1/4" Slotted, #1 and #2 Phillips, 1/4" and 5/16" Nut Drivers.

Dimensions

Length	4-7/8"
Width	1-1/4"
Height	1-1/4"
Weight	3 oz.

6 in 1 Stubby Multi-Tool
1891351

RATCHETING 9 IN 1 MULTI-TOOL

TOOLS+

A simple twist of the hand can drive a screw, nut or bolt in no time. Nine different bits are at your disposal. A ratcheting mechanism and an ergonomic rubber grip comes standard.

Rugged and Durable
Designed with a high-torque ratcheting mechanism and thick shaft walls for long life and less stripping.

More Torque
A slip-resistant grip allows for maximum leverage.

Simple Setup
Easily change between forward, reverse and locked positions.

Product Specifications

Item Number	1891259
Product Description	MTR91
Bit Sizes	#1 & #2 Phillips, 3/16" & 1/4" Slotted, #2 Square, 1/4", 5/16", and 3/8" Nut Drivers, and Valve Core Remover.

Dimensions

Length	8-1/2"
Width	1-1/4"
Height	1-1/4"
Weight	12 oz.

Features 9 driving bits, including a Valve Core Remover.

Ratcheting 9 in 1 Multi-Tool
1891259

hilmor

HEX KEY SETS

TOOLS+

Hex head screws have nowhere to hide. hilmor Hex Key Sets have standard and metric sizes covered. They're slip-resistant so you never lose your grip and always keep your cool.

Product Specifications

Item Numbers	1839049	1937816
Product Descriptions	HKSS Ball End Hex Key Set Inch	HKSBEM Ball End Hex Key Set Metric
Sizes	.05", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16", 3/8"	1.5mm, 2mm, 2.5 mm, 3mm, 4mm, 5 mm, 6 mm, 8 mm, 10 mm

Dimensions

Length	7-1/4"	7"
Width	2-3/4"	2-1/2"
Height	3/4"	3/4"
Weight	13 oz.	12 oz.

Ball End Hex Key Set Metric
1937816

Ball End Hex Key Set Inch
1839049

You don't fold on the job. Luckily, this set does for easy, convenient storage. Available in inch and metric.

Product Specifications

Item Numbers	1839048	1891472
Product Descriptions	HKFS Folding Hex Key Set Inch	HKFSM Folding Hex Key Set Metric
Sizes	5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4"	1.5mm, 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm, 8mm

Dimensions

Length	4-1/4"	4-1/4"
Width	7/8"	7/8"
Height	1-5/8"	1-5/8"
Weight	5 oz.	5 oz.

Folding Hex Key Set Metric
1891472

Folding Hex Key Set Inch
1839048

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DIGITAL ADJUSTABLE TORQUE WRENCH

TOOLS+

Tightening to true torque when working on mini-splits is serious business. Under tightening could result in refrigerant leaks, while overtightening could mean burst tubing. That's why the hilmor Digital Adjustable Torque Wrench is critical to perfecting torque time and time again. The 9 factory memory settings make it quick to set common torque values, while the digital display shows the amount of force applied to the flare nut. And if that didn't make the job easy enough, lights and buzzers illuminate and sound when the desired torque is achieved.

Lighten Your Load
Adjustable jaw eliminates the need to carry around extra heads.

Easy To Use
Nine programmable memory settings allow for quick access to the most common torque levels.

Precise Readings
Digital adjustments help ensure torque measurement accuracy.

Extra Confidence
LED lights and buzzer indicate that desired torque has been reached.

Product Specifications

Item Number	1963826
Product Description	DAJTW
Jaw Capacity	1/4" to 1-1/16" to accommodate up to 5/8" flare nuts
Accuracy	+ / 3%
Batteries	AA (x2)

Dimensions

Length	17"
Width	2-3/8"
Weight	2 lbs.

Digital Adjustable Torque Wrench
1963826

hilmor

ADJUSTABLE WRENCHES

TOOLS+

Take your pick of imperial or metric scales. They come standard on all of our Adjustable Wrenches. They're made to fit in your hand with ergonomic grips and made to last by hilmor.

Comfortable Grip
Over-molded handles reduce hand fatigue and won't slip or twist.

x2 Added Versatility
Get two-in-one capabilities with both inch and metric scales.

Product Specifications

Item Number	1885369	1885370	1885422
Product Descriptions	AW6	AW8	AW12
Sizes	6"	8"	12"
Jaw Capacity Up To	1"	1-1/8"	1-1/2"
Dimensions			
Length	6-3/8"	8-1/4"	12-1/8"
Width	1-3/4"	1"	2-7/8"
Height	1/2"	5/8"	3/4"
Weight	6 oz.	12 oz.	1.7 lbs.

6", 8", and 12" Adjustable Wrenches
1885369, 1887370, 1885421

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QUICK-ADJUSTING TONGUE & GROOVE PLIERS

TOOLS+

We've made an adjustment to standard pliers. Our Quick-Adjusting Tongue and Groove Pliers feature a simple push button to give you a quick precision grip on pipes, fasteners and more.

Simple Sizing
A push button allows for quick adjustments while multiple grooves guarantee precise positioning.

Comfortable Grip
Over-molded handle reduces hand fatigue and won't slip or twist.

Strong Hold
Machined jaws increase grip on the material every time.

Product Specifications

Item Numbers	1890996	1890998
Product Descriptions	PBTGP8	PBTGP12
Length	8"	12"
Jaw Capacity	1-1/2"	2-3/16"
Dimensions		
Length	8-1/4"	12-1/4"
Width	5/8"	3/4"
Height	1-3/4"	2-1/2"
Weight	9 oz.	1.4 lbs.

8" and 12" Quick-Adjusting Tongue & Groove Pliers
1890996, 1890998

HILMOR RANGE

hilmor

LINEMAN'S PLIERS

Grab. Twist. Cut. Repeat. Over and over again. A laser-hardened cutting edge stays sharp longer, and cross-cut knurled jaws guarantee a strong grip time after time. hilmor Lineman's Pliers will last.

Stays Sharp
A laser-hardened cutting edge will stay sharper for longer.

Strong Hold
Cross-cut knurled jaws increase grip on the material every time.

Comfortable Grip
Over-molded handles reduce hand fatigue and won't slip or twist.

TOOLS+

Product Specifications

Item Numbers	1885399	1885411
Product Descriptions	LP85	LP95
Sizes	8-1/2"	9-1/2"
Dimensions		
Length	8-3/4"	9-1/2"
Width	2"	2-1/4"
Height	7/8"	7/8"
Weight	13 oz.	1.0 lbs.

8-1/2" and 9-1/2"
Lineman's Pliers
1885399, 1885411

LONG NOSE PLIERS

It's tough to beat a good pair of pliers. A laser-hardened cutting edge, cross-cut knurled jaws and over-molded handles make hilmor Long Nose Pliers pretty darn tough to beat.

Stays Sharp
A laser-hardened cutting edge will stay sharper for longer.

Strong Hold
Cross-cut knurled jaws increase grip on the material every time.

Comfortable Grip
Over-molded handles reduce hand fatigue and won't slip or twist.

Product Specifications

Item Numbers	1885397	1885398
Product Descriptions	LNP6	LNP8
Sizes	6"	8"
Dimensions		
Length	6-7/8"	8-5/8"
Width	2-1/8"	2-1/8"
Height	5/8"	3/4"
Weight	4 oz.	8 oz.

6" and 8" Long Nose Pliers
1885397, 1885398

hilmor

DIAGONAL CUTTING PLIERS

TOOLS+

What's our angle? To make a great pair of pliers. The Diagonal Cutting Pliers stay sharp as a samurai sword with a laser-hardened cutting edge.

Stays Sharp
A laser-hardened cutting edge will stay sharper for longer.

Comfortable Grip
Over-molded handles reduce hand fatigue and won't slip or twist.

Product Specifications

Item Numbers	1885412	1885363
Product Descriptions	DCP6	DCP8
Sizes	6"	8"

Dimensions

Length	6-3/4"	8"
Width	2-1/8"	2-1/8"
Height	3/4"	3/4"
Weight	4 oz.	12 oz.

6" and 8" Diagonal Cutting Pliers
1885412, 1885363

CRIMPING TOOL

Crimp. Cut. We've got you covered. The hilmor Crimping Tool handles both insulated and non-insulated terminals. Over-molded handles and a hardened cutting edge come standard, too.

Stays Sharp
A hardened cutting edge will stay sharper for longer.

Comfortable Grip
Over-molded handles reduce hand fatigue and won't slip or twist.

Product Specifications

Item Number	1885429
Product Description	FC10
Size	10"

Capacity	
Wire	10-22AWG
Insulated Terminals	10-22AWG
Non-Insulated Terminals	10-22AWG

Dimensions

Length	9-7/8"
Width	2-1/4"
Height	3/4"
Weight	1.1 lbs.

10" Crimping Tool
1885429

DIVERSITECH INTERNATIONAL

WIRE STRIPPERS

TOOLS+

The hilmor Wire Strippers feature easy-to-read size markings, which means you can strip wires with ease and without damage. Electrical work is no laughing matter, and these Wire Strippers are no joke.

Comfortable Grip
Over-molded handles reduce hand fatigue and won't slip or twist.

Quick ID
Easy-to-read size markings on the jaws make identification simple.

Bolt Cutting
Cuts 4-40, 5-40, 6-32, 8-32, 10-24, 10-32 bolts and screws to desired size.*1885424 Only.

Product Specifications

Item Numbers	1885427	1885424
Product Descriptions	WS6	WS8
Sizes	6"	8"
Capacity	10-20AWG	10-22AWG
Dimensions		
Length	6-1/2"	8"
Width	2-1/4"	2-5/8"
Height	5/8"	5/8"
Weight	5 oz.	8 oz.

8" Wire Stripper
1885424

6" Wire Stripper
1885427

FOLDING UTILITY KNIFE

TOOLS+

hilmor's Folding Utility Knife stands up to the test with an all-metal body. It's your new knife.

Rugged and Durable
An all-metal body increases life and durability.

Securely Locks Blade
A blade-locking mechanism prevents the blade from coming out during use.

One-handed Operation
A liner-lock for one-handed operation and extra safety.

Superior Versatility
A built-in wire-stripping channel for up to 10-gauge wire is there when you need it.

Belt Clip
A belt clip keeps knife close for easy access.

Product Specifications

Item Number	1885433
Product Description	UKHF

Dimensions	
Length	1-1/2"
Width	3/4"
Height	4"
Weight	5 oz.

Utility Knife Blades	
Item Number	1885432
Product Description	UKB Utility Knife Blades 5PK

You won't fold on the job. With a liner lock, this knife won't either. Until you want it to.

Folding Utility Knife
1885433

DEBURRING TOOLS

TOOLS+

Whether they're inside or outside, copper or plastic, hilmor Deburring Tools can smooth things over. With steel blades, the standard Deburrer works flawlessly on OD tubing from 1/4" to 1-5/8". And our Pocket Size Deburring Tool lets you put your silky-smooth signature on even the smallest pieces of tubing.

Product Specifications

Item Numbers	1839052	1891258
Product Descriptions	DBUR	DBURPS
Sizes	1/4" to 1-5/8"	1/4" and up
Dimensions		
Length	2-3/8"	5-1/2"
Width	2-1/8"	3/8"
Height	2-1/8"	3/8"
Weight	2 oz.	7 oz.

Deburring Tools
1839052, 1891258

TOOLS+

GG-1   DrainGun   DIVERSITECH

DrainGun
Clear drain lines with our patented WOOSH.

NEW
12-PACK
CARTRIDGE

SWOOSH
DrainGun
CO₂ Refill Cartridges

Qty 12

Lightweight • Portable • Environmentally friendly

DRAINGUN
DRAIN LINE CLEANER

- **Small and lightweight to handle**
- **Quick and easy to use with no mess**
- **Uses environmentally friendly CO_2**
- **Flexible hose for hard to reach areas**
- **Safety catch to prevent accidental discharge**
- **Optional 3-piece adaptor kit available**

UNBLOCK CONDENSATE DRAIN LINES & PIPEWORK INSTANTLY

HEATING & PLUMBING RANGE - PAGE 238

WARRANTY - REPAIR

BOSCH **PROMAX**® TIF **ROBINAIR**

OUR SERVICE CENTRE WILL UNDERTAKE...

- Repairs to **PROMAX** and **BOSCH** recovery machines
- Repairs and servicing to **ROBINAIR** vacuum pumps
- **TIF** scale calibration and certificate (£60 charge)

STANDARD RETURN PROCEDURE...

- Send PO to our sales email (sales@diversitech.com)
- Fill out the form (page 2) and send it back with the machine
- Send the machine back to our address in Nottingham, quoting PO number
- The machine will be inspected, and a repair quote sent to the wholesaler, along with invoice for £40
- On receipt of the order for the repair quote, the machine will be repaired and returned

WARRANTY RETURN PROCEDURE...

**Our standard warranty is one year from date of purchase unless stated differently
(Some leak detectors are 2 years)**

- Send the machine back to our address in Nottingham with a copy of proof of purchase and date
- Fill out the attached form and send it back with the machine
- The machine will be inspected
- It will be repaired or replaced at the discretion of DiversiTech International
- The machine will be returned to the customer with no repair costs

IMPORTANT: All units will be kept for a maximum of 60 days from customer quotation date. After this date, if no response has been received, the unit will be discarded.

Note: If you are making a warranty claim, proof of purchase is required.
A charge of £40 will be made prior to the inspection of any unit (excluding warranty returns).

Vacuum pumps must be drained of oil prior to shipping. Heavily contaminated units (oil) will incur a additional cleaning charge.

Recovery machines need to have both valves fully open and relieved of pressure prior to shipping. This should be done by a competent engineer.

Please note: Warranty claims are returned to DiversiTech International at the customer's expense. DiversiTech International will assess your claim, and provide feedback after the unit has been inspected and tested. Repair requests will be assessed, and an individual quote will be provided. A repair request will incur a charge.

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DIVERSITECH
INTERNATIONAL

hilmar®
WRENCHES

Digital Adjustable Torque Wrench
1963826

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DIVERSITECH
INTERNATIONAL

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DIVERSITECH® INTERNATIONAL   Glaisdale Drive East | Nottingham NG8 4LY | United Kingdom

NOTES

DIVERSITECH®
INTERNATIONAL

NOTES

ENGINEER ON CALL

TELEPHONE

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T: +44(0)115 900 5858   **E:** sales@diversitech.com   **W:** www.diversitech.global

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