

BURGAFLEX HANDBOOK

Premium flexible refrigerant hose solutions
for automotive, transport, and stationary
air-conditioning and refrigeration applications

SECOND EDITION

Contents

Welcome	2
BURGA CLIP®	3
Fitting Solutions	5
Burgaflex MULTICOOL 6090 Premium Hose	7
BurgaBRAZE	9
Fix Any Vehicle-Specific Air-Con Hose	11
BURGA CLIP® Fitting Packs	13
BURGA CLIP® Fitting Pack Contents	15
The Company We Keep	17

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Welcome

From our humble beginnings in Holland in 1984, Burgaflex has become a global leader in the innovation and manufacture of hoses and fittings for the automotive, hydraulic, and aerospace industries.

With production facilities in several countries, we are proud to be original equipment suppliers to some of the most advanced companies in the world. The engineering rigour and disciplines required of an OE supplier allows us to provide aftermarket solutions of the highest quality.

We are pleased to share with you some of our premium products, and hope you find the following pages useful. Our Burgaflex MULTICOOL 6090 hose, BURGA CLIP® fittings, and BurgaBRAZE brazing solutions offer engineering excellence with reliability, dependability, and cost effectiveness that only Burgaflex can provide.



Discover More Burgaflex Resources

Browse a library of documentation, including the latest BURGA CLIP® Catalogue, to explore the full range of fittings, hose solutions, accessories & specialised configurations.



BURGACLIP®

The fastest and most reliable, durable, and extensive flexible refrigerant hose and fitting solution for the automotive, transport and stationary air-conditioning and refrigeration industries.

- Use BURGACLIP® in the workshop, in the field, or on the vehicle
- Reliable, robust, leak-free assembly – every time
- Rotatable fitting – perfect orientation, perfect job



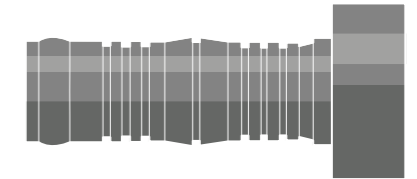
THE 30 SECOND CRIMP:

A fast, four-step process delivering reliable, leak-free connections in just 30 seconds.

<p>1 Insert the hose into the cage</p>	<p>2 Lubricate the tail and insert into the hose</p> <p>Nylog Blue recommended</p>	<p>3 Two stage crimp</p>	<p>4 Rotate the fitting for correct orientation</p>
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Why BURGACLIP® doesn't leak:

Every BURGACLIP® fitting features a precision CNC-machined tail with 8 sealing grooves, creating a secure multi-point seal between the fitting and the hose. This unique tail profile is so effective, it's patented.



High quality "OE-spec" re-usable fitting

8 sealing grooves

MULTICOOL 6090 hose

Premium European raw material and plating

The cage locates the clips perfectly

Patented tail design allows the fitting to be rotated for perfect alignment

Stainless clips for precise tension

Engineered polymer cage

Fitting Solutions

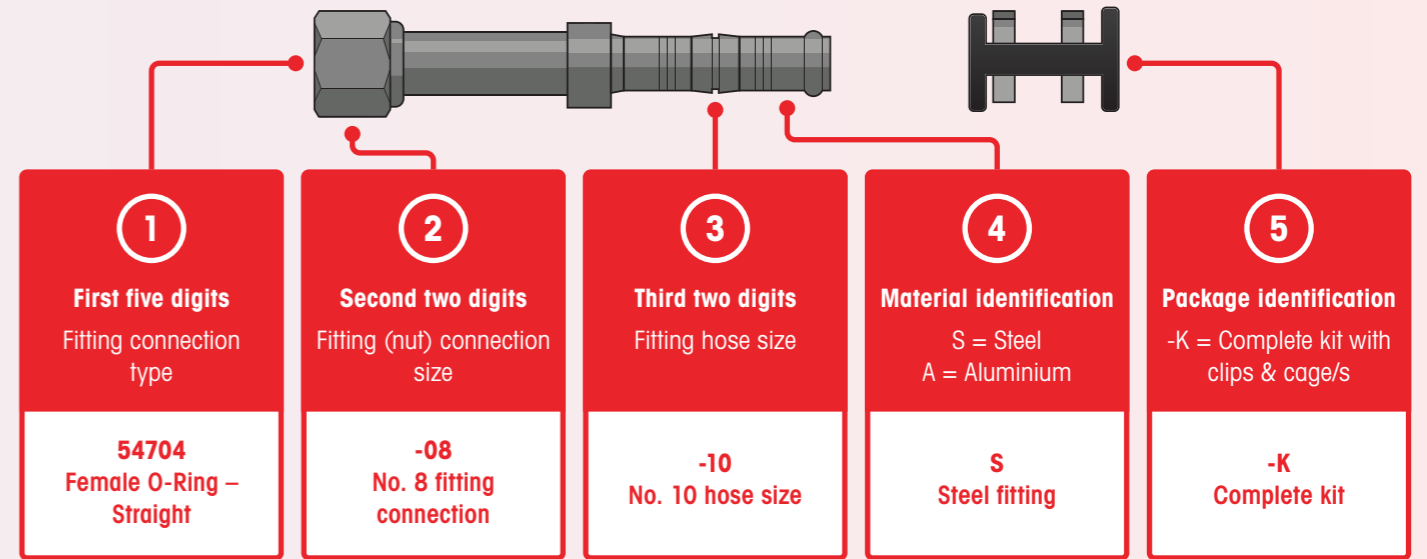
Burgaflex offers one of the industry's most comprehensive HVAC&R fitting ranges, with over 500 BURGACLIP® configurations designed for automotive, transport and stationary refrigeration applications. From everyday service replacements through to specialised OEM solutions, the range is engineered to deliver fast, leak-free installation flexibility and long-term dependability across a wide variety of systems and layouts.

- Female & Male O-Ring, ORFS, Female Flare, Tube O-Ring & Quick Connect solutions
- Straight, 45°, 90° & 180° fitting orientations, including step-up & step-down combinations
- R134a, R1234yf, 7/16-20, M10x1.25 & MIOR service/access-port configurations
- Block, hex-block, short-drop, TXV, bulkhead & compressor fitting designs
- Splicers, adaptors, braze fittings & captive braze solutions
- Steel and alloy material options across selected ranges
- Custom-engineered & OEM-specific solutions available



How to interpret BURGACLIP® fitting part numbers

The following example uses a Female O-Ring - Straight, Number 8 fitting connection, Number 10 hose size, steel fitting in kit form. Its Part Number, therefore, is **54704-08-10S-K**.



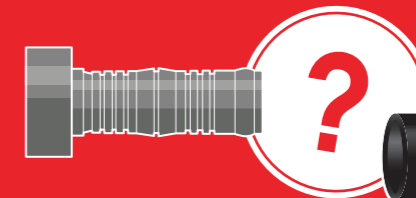
Browse the BURGACLIP® Catalogue

Explore the full range of fittings, hose solutions, accessories & specialised configurations, plus access additional Burgaflex documentation and resources.



Contact us if you can't find the right size, require a custom configuration, or are an OEM in need of a tailored solution.

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Burgaflex MULTICOOL 6090 Premium Refrigerant Hose

A next-generation premium reduced barrier refrigerant hose, designed to deliver durability, stability, and performance across demanding HVAC&R and automotive applications.

Its advanced multi-layer construction combines an IIR inner tube, specialised barrier layer, high-density reinforcement and EPDM outer cover to deliver a balanced combination of flexibility, strength and environmental resistance.

Engineered for compatibility with modern refrigerants and lubricants, MULTICOOL 6090 is built to perform reliably under pressure while maintaining long-term system integrity.

Available lengths:

5m, 15m, and bulk reels

Compatibility:

R134a, R1234yf, R404A, R452A, R513A; PAG & POE lubricants

Temperature Range:

-40°C to +135°C

Standards:

J2064 & J3062 Type C Class 1, Ford ESDS7H-19B591-AA, GM GMW14319

Fitting Options:

BURGACLIP®, beadlock, and dimensionally equivalent reduced crimp fittings

Burgaflex MULTICOOL 6090 Hose Specifications

Size	Nominal Dimensions		Production I.D.		Production O.D.		Wall Thickness	Eccentricity	Working Pressure	Burst Pressure	Bend Radius	Weight
	inch	mm	mm	tol.	mm	tol.	mm	max/mm	max/bar	bar	min/mm	g/m
6090-06	5/16	8.0	8.2	±0.4	14.8	±0.5	3.3	0.4	35	180	55	140
6090-08	13/32	10.0	10.8	±0.4	17.3	±0.5	3.2	0.4	35	180	65	162
6090-10	1/2	13.0	13.1	±0.4	19.4	±0.5	3.2	0.4	35	180	75	186
6090-12	5/8	16.0	16.1	±0.4	23.6	±0.5	3.7	0.4	35	120	90	269



Inner Tube – Isobutylene-Isoprene Rubber (IIR)

Controls permeability at the source

Reduces refrigerant loss while improving moisture resistance and maintaining flexibility at low temperatures.



Barrier – Polyamide (PA)

Locks in system efficiency

Minimises refrigerant migration to support long-term performance while maintaining compliance with reduced barrier standards.



Buffer – Ethylene Propylene Diene Monomer (EPDM) Rubber

Maximises hose stability when under stress

Absorbs thermal and pressure cycling to maintain structural integrity between layers during continuous operation.



Reinforcement – Polyethylene Terephthalate (PET) Monofilament Braid

Reduces ovality, maximises strength

75% denser technically-woven yarn construction improves burst thresholds, vibration tolerance, and abrasion resistance.



Cover – Ethylene Propylene Diene Monomer (EPDM) Rubber

The first line of defence

Resists UV, ozone, and harsh operating conditions to ensure long-term durability in demanding real-world applications.

BurgaBRAZE

Flux-cored aluminium brazing rods

BurgaBRAZE flux-cored aluminium brazing rods are specifically designed for alloy air-con pipe and fitting repair. They make it easy to achieve clean, factory-quality results in next to no time – without any special equipment.

Key Factor	Conventional Aluminium Brazing	BurgaBRAZE
The Rod	✗ Can be challenging to work with due to inconsistencies in alloy composition and uncooperative temperature behaviour.	✓ Performs within the temperature “sweet spot” when alloy brazing, thanks to custom alloy rod composition.
The Flux	✗ Conventional flux chemistry can struggle to perform when working with in-service aluminium AC pipework.	✓ BurgaETCH chemistry – compressed powder flux-core that actively etches challenging aluminium AC pipework.
The Process	✗ Risky – relies heavily on operator timing, judgement, temperature guesswork, and good luck!	✓ Smart “when to braze” indicative process helps identify the optimal aluminium AC pipework brazing temperature window.

Typical Melt Range	Maximum Brazing Temperature	Typical Working Pressure	Typical Tensile Shear Strength	Flux Activation Temperature	Corrosion Resistant
576 – 582°C	605°C	21755 PSI 150 MPa	34000 PSI 234 MPa	570 – 590°C	Yes

Low-temp high-strength custom alloy blend

Rod diameter = 2mm
Rod length = 500mm

Each tube contains 15 brazing rods

BurgaETCH compressed powder flux-core

Part No. **BF-B15**

VIPER



HOT TIP!

For even greater success, use BurgaBRAZE with Viper's Heat Protection Range

Viper Heat Blocking Gel
Part No. RT410S

Viper WetRag® Heat Blocking Putty
Part No. RT400P

Viper WetRag® HeatShield
Part No. RT420H

Burgaflex provides the perfect solution...

...to fix any vehicle-specific air-con hose.

Go from this typical leaking beadlock fitting...

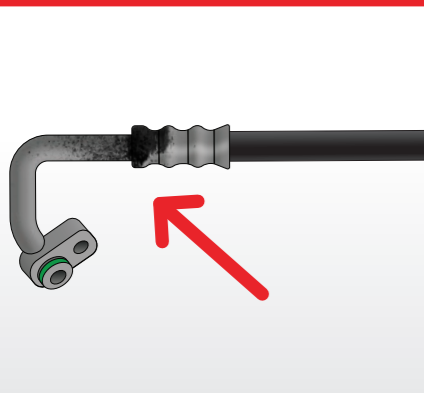
Don't waste time and money waiting for genuine replacement parts. Get your customers on the road today in air-conditioned comfort.



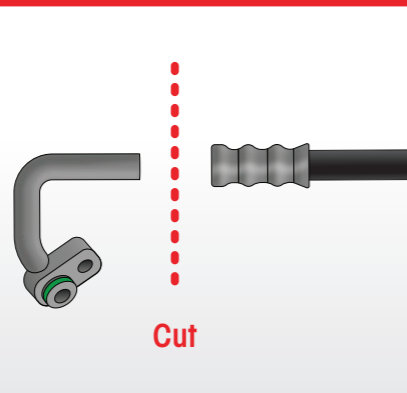
...to this AC hose repaired with BURGACLIP®!

The BURGACLIP® patented tail profile and BurgaBRAZE rods ensures a robust, reliable, leak-free assembly – every time.

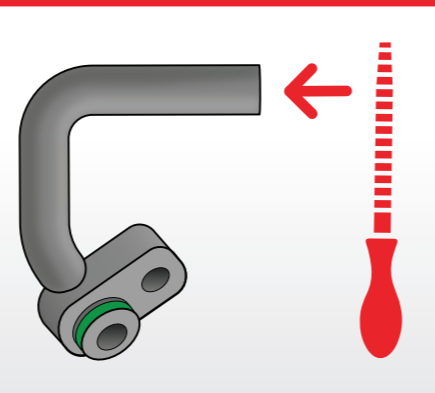
1 Inspect hose ends for damage or corrosion



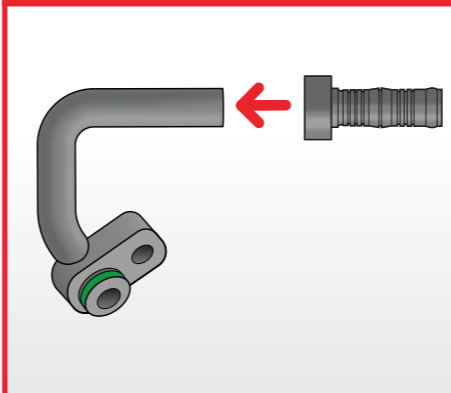
2 Cut beadlock crimp off to free fittings



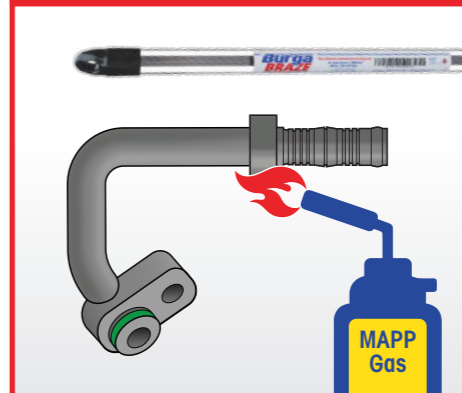
3 File ends to remove burrs and swarf



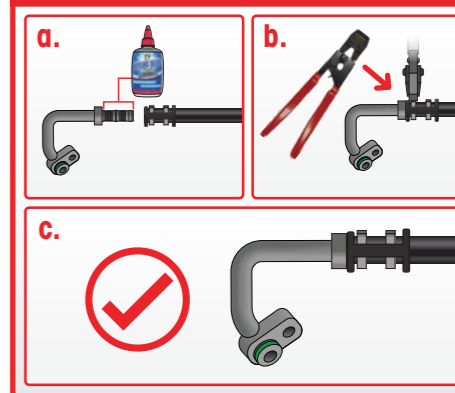
4 Select the correct size BURGACLIP® tail



5 Braze using BurgaBRAZE rods



6 Secure hose with BURGACLIP® solution



BE READY FOR ANYTHING WITH
BURGA CLIP®
FITTING PACKS

The BURGA CLIP® Fitting Pack range is designed to provide workshops and mobile technicians with a practical, scalable solution for automotive AC hose manufacture and repair. Covering everything from regular servicing to specialised emergency repairs, each pack is purpose-built to expand repair capability, reduce downtime and simplify organisation. Supplied in durable Milwaukee PACKOUT™ Boxes, the range is ideal for efficient storage, transport and workshop integration.



MANUFACTURE A NEW COMPLETE AIR-CON HOSE

Part No. BF-1FK
BURGA CLIP®
FOUNDATION FITTING PACK

The core BURGA CLIP® starter pack, containing the most commonly used fittings, clips and cages for everyday AC hose repairs and assembly. Includes straight, 45° and 90° fittings, inline splicers, Nylog assembly lubricant and calibrated crimping pliers.

Part No. BF-1AK
BURGA CLIP®
ADD-ON FITTING PACK

An expansion pack that extends the Foundation Pack with additional #12 fittings, MIOR fittings, access-port fittings and inline splicers. Designed to increase repair flexibility and capacity across a wider range of automotive AC hose configurations.

REMAKE AN EXISTING VEHICLE-SPECIFIC OE HOSE

Part No. BF-1RK
BURGA CLIP®
OE HOSE REPAIR FITTING PACK

A dedicated OE hose repair solution for remanufacturing leaking, damaged or discontinued automotive AC hoses and alloy lines. Includes alloy and steel braze-on tails, matching clips and cages, BurgaBRAZE alloy brazing rods and calibrated crimping pliers.

Part No. BF-1EK
BURGA CLIP®
EMERGENCY FITTING PACK

A specialist repair pack developed for uncommon and complex AC hose repair situations. Includes step-up and step-down braze-on tails, MIOR fittings, service ports and valve cores. Partner with BF-1RK to remake almost any vehicle-specific AC hose.

Part No. BF-1VK
BURGA CLIP®
VEHICLE FITTING PACK COMBO

A comprehensive solution combining the BF-1FK Foundation Pack, BF-1AK Add-On Pack and BF-1RK OE Hose Repair Pack into a single part number. Designed to maximise BURGA CLIP® repair and hose manufacturing capability, it provides extensive coverage across a wide range of automotive AC hose applications, helping workshops and mobile service technicians solve today's AC hose problem – today!

Complete fitting pack contents shown on the following page.

**Part No. BF-1FK
BURGACLIP®
FOUNDATION FITTING PACK**

Item Part Number	Qty	Description
54704-06-06S-K	2	BFX FOR Kit 06-06 STL STR
54704-08-08S-K	2	BFX FOR Kit 08-08 STL STR
54704-10-10S-K	2	BFX FOR Kit 10-10 STL STR
54705-06-06S-K	2	BFX FOR Kit 06-06 STL 45°
54705-08-08S-K	2	BFX FOR Kit 08-08 STL 45°
54705-10-10S-K	2	BFX FOR Kit 10-10 STL 45°
54706-06-06S-K	2	BFX FOR Kit 06-06 STL 90°
54706-08-08S-K	2	BFX FOR Kit 08-08 STL 90°
54706-10-10S-K	2	BFX FOR Kit 10-10 STL 90°
54719-06-06HPS-K	1	BFX FOR Kit 06-06 STL 90° HP
54719-08-08HPS-K	1	BFX FOR Kit 08-08 STL 90° HP
54719-10-10LPS-K	1	BFX FOR Kit 10-10 STL 90° LP
54743-06-06A-K	2	BFX Braze Tail Kit 06-06 AL
54743-06-06S-K	1	BFX Braze Tail Kit 06-06 STL
54743-08-08A-K	2	BFX Braze Tail Kit 08-08 AL
54743-08-08S-K	1	BFX Braze Tail Kit 08-08 STL
54743-10-10A-K	2	BFX Braze Tail Kit 10-10 AL
54743-10-10S-K	1	BFX Braze Tail Kit 10-10 STL
54743-12-12A-K	1	BFX Braze Tail Kit 12-12 AL
54743-12-12S-K	1	BFX Braze Tail Kit 12-12 STL
548751-06-06HP-K	1	BFX Splicer Kit 06-06 STL STR HP
548751-08-08HP-K	1	BFX Splicer Kit 08-08 STL STR HP
548751-10-10LP-K	1	BFX Splicer Kit 10-10 STL STR LP
548753-06-06-K	1	BFX Splicer Kit 06-06 STL STR
548753-08-08-K	1	BFX Splicer Kit 08-08 STL STR
548753-10-10-K	1	BFX Splicer Kit 10-10 STL STR
8766	1	BFX Crimping Pliers
RT201B	1	Nylog Blue Gasket and Thread Sealant (30ml)

**Part No. BF-1AK
BURGACLIP®
ADD-ON FITTING PACK**

Item Part Number	Qty	Description
54206-06-06S-K	2	BFX MIOR Kit 06-06 STL STR
54206-08-08S-K	2	BFX MIOR Kit 08-08 STL STR
54206-10-10S-K	2	BFX MIOR Kit 10-10 STL STR
54206-12-12S-K	2	BFX MOR Kit 12-12 STL 90°
54208-06-06S-K	2	BFX MIOR Kit 06-06 STL 90°
54208-08-08S-K	2	BFX MIOR Kit 08-08 STL 90°
54208-10-10S-K	2	BFX MIOR Kit 10-10 STL 90°
54208-12-12S-K	2	BFX MIOR Kit 12-12 STL 90°
54213-06-06S-K	2	BFX MOR Kit 06-06 STL STR
54213-08-08S-K	2	BFX MOR Kit 08-08 STL STR
54213-10-10S-K	2	BFX MOR Kit 10-10 STL STR
54213-12-12S-K	2	BFX MOR Kit 12-12 STL 90°
54214-06-06S-K	2	BFX MOR Kit 06-06 STL 90°
54214-08-08S-K	2	BFX MOR Kit 08-08 STL 90°
54214-10-10S-K	2	BFX MOR Kit 10-10 STL 90°
54214-12-12S-K	2	BFX MOR Kit 12-12 STL 90°
54705-12-12S-K	2	BFX FOR Kit 12-12 STL 45°
54706-12-12S-K	2	BFX FOR Kit 12-12 STL 90°
54717-06-06HPS-K	4	BFX FOR Kit 06-06 STL STR HP
54717-08-08HPS-K	4	BFX FOR Kit 08-08 STL STR HP
54717-10-10LPS-K	4	BFX FOR Kit 10-10 STL STR LP
548751-12-12LP-K	2	BFX Splicer Kit 12-12 STL STR LP

**Part No. BF-1RK
BURGACLIP®
OE HOSE REPAIR FITTING PACK**

Item Part Number	Qty	Description
54743-06-06A-K	10	BFX Braze Tail Kit 06-06 AL
54743-06-06S-K	4	BFX Braze Tail Kit 06-06 STL
54743-08-08A-K	10	BFX Braze Tail Kit 08-08 AL
54743-08-08S-K	4	BFX Braze Tail Kit 08-08 STL
54743-10-10A-K	10	BFX Braze Tail Kit 10-10 AL
54743-10-10S-K	4	BFX Braze Tail Kit 10-10 STL
54743-12-12A-K	6	BFX Braze Tail Kit 12-12 AL
54743-12-12S-K	2	BFX Braze Tail Kit 12-12 STL
8766	1	BFX Crimping Pliers
BF-B15	1	BurгаBRAZE Flux-Cored Alloy Brazing Rod - 15pk
RT201B	1	Nylog Blue Gasket and Thread Sealant (30ml)

**Part No. BF-1VK
BURGACLIP®
VEHICLE FITTING PACK COMBO**

Contains 1 x BF-1FK BURGACLIP® Foundation Pack

Contains 1 x BF-1AK BURGACLIP® Add-On Fitting Pack

Contains 1 x BF-1RK BURGACLIP® OE Hose Repair Fitting Pack



**Part No. BF-1EK
BURGACLIP®
EMERGENCY FITTING PACK**

Item Part Number	Qty	Description
54743-06-08A-K	4	BFX Braze Tail Kit 06-08 StpUp AL
54743-08-10A-K	4	BFX Braze Tail Kit 08-10 StpUp AL
54743-10-12A-K	4	BFX Braze Tail Kit 10-12 StpUp AL
54743-08-06A-K	4	BFX Braze Tail Kit 08-06 StpDn AL
54743-10-08A-K	4	BFX Braze Tail Kit 10-08 StpDn AL
54743-12-10A-K	4	BFX Braze Tail Kit 12-10 StpDn AL
54743-06	4	BFX Braze Part MIOR 06
54743-08	4	BFX Braze Part MIOR 08
54743-10	4	BFX Braze Part MIOR 10
54743C-06	2	BFX Braze Part MIOR Captive 06
54743C-08	2	BFX Braze Part MIOR Captive 08
54743C-10	2	BFX Braze Part MIOR Captive 10
54743-LPS	4	BFX Braze Part R134a LP
54743-HPS	4	BFX Braze Part R134a HP
54743-PS	4	BFX Braze Part 7/16 - 1/4MF AP
7039AU	1	Valve Core R134a Standard - 10pk
7040AU	1	Valve Core R134a High Flow - 10pk
BF-4000	1	Tool - Port Valve Core Remover - Dual Size
BF-4001	1	Drill Bit - suits Braze Ports
7037AU	1	Service Port Cap R134a Low (Blue) - 10pk
7308AU	1	Service Port Cap R134a High (Red) - 10pk

Quality, inside and out.
BURGACLIP® Fitting Packs are supplied in heavy-duty Milwaukee PACKOUT™ Boxes.

The Company We Keep

Burgaflex Asia Pacific, a division of the global Burgaflex Group, is part-owned by the SuperCool Group of Companies. Our Asia Pacific headquarters are based at Ormeau in Queensland, Australia.

As part of the SuperCool Group, Burgaflex Asia Pacific uniquely supports our customers in every aspect of total system design and asset coupling integrity via our purpose-built HVAC&R test facility, SuperTest™. This accessible and affordable environmental test centre is the only facility of its kind in Australasia.

DON'T JUST TAKE OUR WORD FOR IT

We have been using Burgaflex hose and fittings for several years now. We were looking for a more reliable hose and fitting combination than our current ferrule/bubble crimping system option, especially in the #8 size.

We found it in Burgaflex. We have had zero discharge hose failures since changing. Burgaflex has created many efficiencies throughout our business. It is much easier to use, being one simple tool to crimp all sizes. The time saved using Burgaflex far outweighs any extra cost of the product.

Brock Macdonald, Managing Director, Rocklea Truck Electrical

Several years ago, I came across Burgaflex at a VASA trade show and was immediately struck by how simple and efficient their hose-making process was. This innovation addressed a significant challenge in the mobile sector of our business, eliminating much of the stress associated with sourcing hoses.

After discovering BurgaBRAZE, I quickly integrated it into our operations, especially for situations where hoses had become unavailable and downtime could seriously impact our industrial and transport clients. The ease of use truly set it apart – there isn't a hose we wouldn't attempt to make with BurgaBRAZE.

Since adopting Burgaflex products, we've seen a noticeable boost in our profits, a reduction in stress, and a dramatic decrease in customer downtime. Without a doubt, these are the best products on the market, offering solutions that genuinely transform the way we work.

Mark Rowe, Director, Rowe Auto Electrical

SYSTEM INTEGRATORS



MILITARY



RENAULT

CONSTRUCTION



AGRICULTURE



JOHN DEERE



MASSEY FERGUSON

TRANSPORT REFRIGERATION



ZANOTTI

BUS & COACH



BUS & COACH

AUTOMOTIVE



BENTLEY



ASTON MARTIN



RAIL



Established in 1984, Burgaflex now has seven world-class manufacturing facilities across the globe. We draw on this expertise and Original Equipment manufacturing rigour as a fluid-transfer solutions provider to give you the ultimate AC advantage.

We pride ourselves on ensuring real-time technical support, on-time stock availability and for supplying the world's most reliable flexible hose solution to the mobile and stationary HVAC&R industries: BURGACLIP®



Visit www.supercool.group to learn more.

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