FOX GEAR

ENGINEERING. INGENUITY.

PRODUCT CATALOG 2026

NON-CONDUCTIVE REFRIGERANT LINE BREAK

A2L Compatible

EKFOXGEAR.COM

U.S. PATENT NO.: 11,435,108

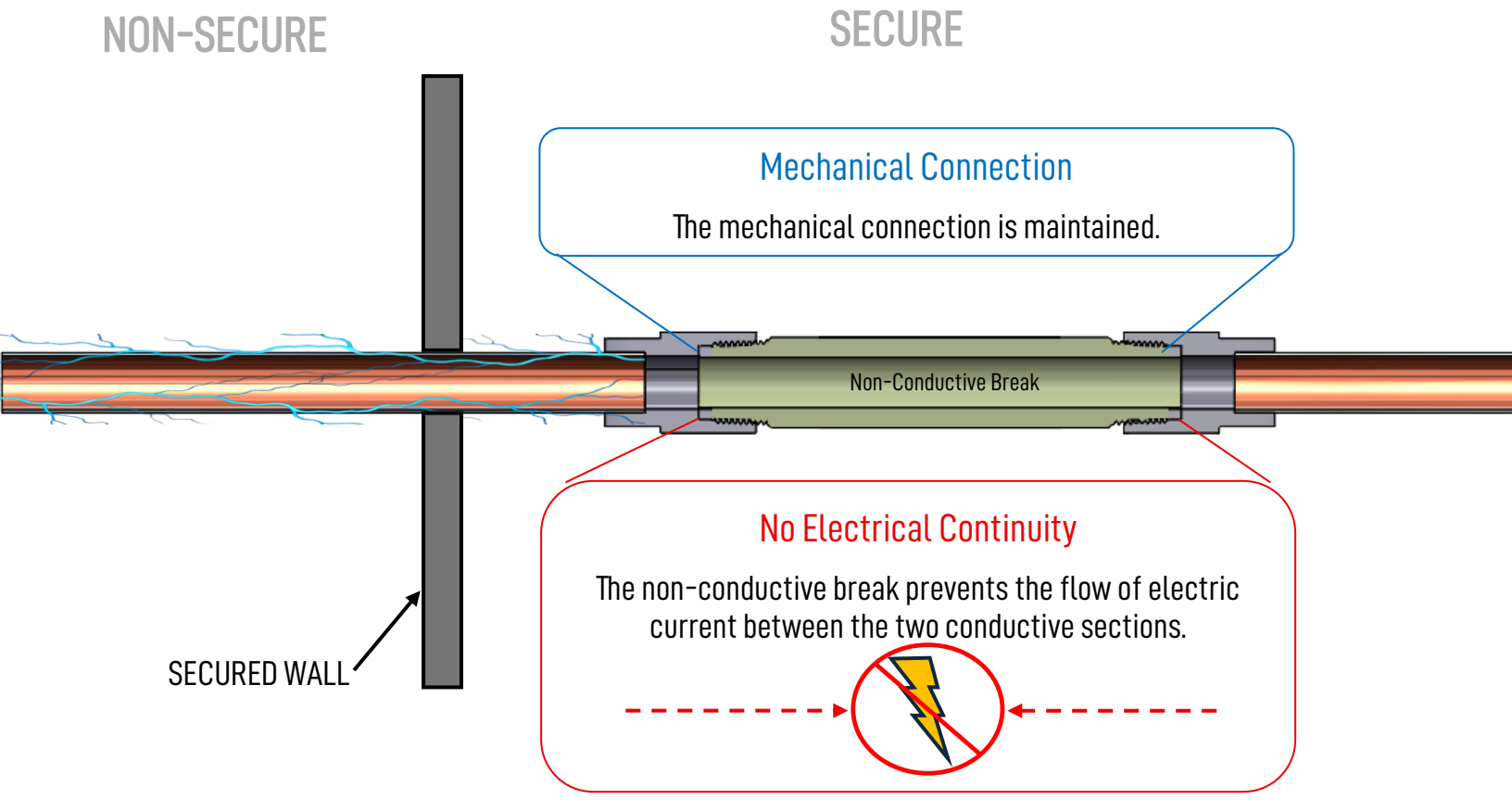
PROUDLY MADE IN THE USA

Table of Contents

Introduction.....3
Product Data.....4
Installation.....5
Dimensions.....6
Technical Specifications.....6

12-Month Limited Warranty

All EKFox Gear products are backed by a 12-month limited warranty during normal and proper use within the warranty period. See information on ekfoxgear.com/terms-conditions for more information.



Description

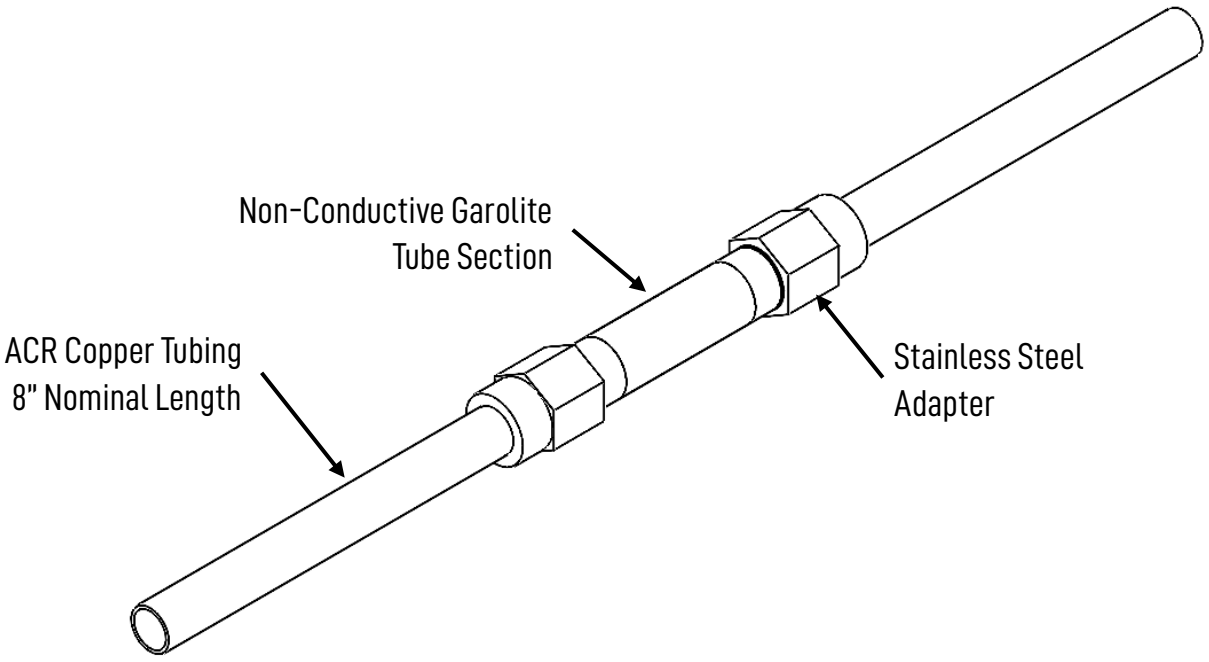
The non-conductive refrigerant line break provides an electrical discontinuity in a metallic refrigerant line while maintaining safe operation of a high-pressure refrigerant system. The product is used for the installation of HVAC units where an electrical discontinuity is required on any metallic lines that pass through a security partition or wall, such as in ICD-705 compliant SCIFs. Usually, non-conductive breaks are only successfully installed on no/low pressure systems (like chilled water lines). The EKFox Gear non-conductive refrigerant line break will successfully work on high-pressure refrigerant lines.

Applications

- Split air conditioning and heat pump systems
- Variable Refrigerant Flow (VRF) System
- Shielded enclosures
- ICD-705 compliant SCIF spaces
- High-security areas

Features and Benefits

- **Compatible Refrigerants** : R-410A, R-32, R-454B
- **Compatible Oils** : POE, PVE
- Compact size and easy installation
- 100% electrical isolation of components



Product Data

Size	Part No.	Copper Pipe Size	Working Pressure Range	Maximum Burst Pressure**
1/4" *	NCB025025GSSCU	1/4" OD	Vacuum to 600 psig (41 bar)	3,000 psig (207 bar)
3/8" *	NCB038038GSSCU	3/8" OD	Vacuum to 600 psig (41 bar)	3,000 psig (207 bar)
1/2" *	NCB050038GSSCU	1/2" OD	Vacuum to 600 psig (41 bar)	3,000 psig (207 bar)
5/8"	NCB063100GSSCU	5/8" OD	Vacuum to 600 psig (41 bar)	3,000 psig (207 bar)
3/4" *	NCB075075GSSCU	3/4" OD	Vacuum to 600 psig (41 bar)	3,000 psig (207 bar)
7/8" *	NCB088075GSSCU	7/8" OD	Vacuum to 450 psig (31 bar)	2,250 psig (155 bar)
1-1/8"	NCB113125GSSCU	1-1/8" OD	Vacuum to 450 psig (31 bar)	2,250 psig (155 bar)
1-3/8"	NCB138125GSSCU	1-3/8" OD	Vacuum to 450 psig (31 bar)	2,250 psig (155 bar)

*UL recognized component; File No. SA44812

**Maximum burst pressure derived from the copper tube handbook and American Society of Mechanical Engineers code for pressure piping (ASME B31)

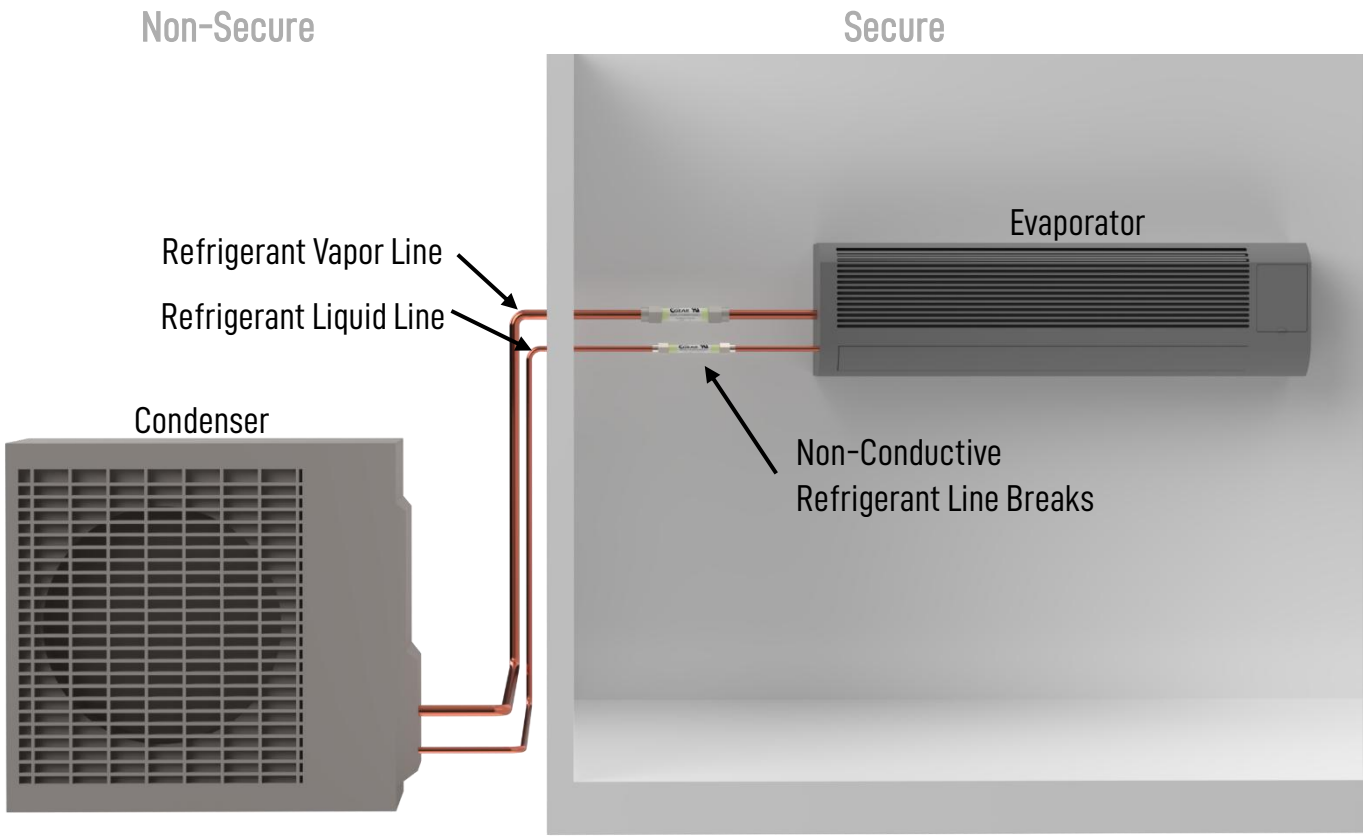
Materials

	Material	Specifications
Break	Garolite G-10	MIL-I-24768/2, UL 94HB
Adapters	316 Stainless Steel	ASTM A182/ASME SA182 and ASTM A314
Tubing	ACR Copper Tubing	ASTM B280

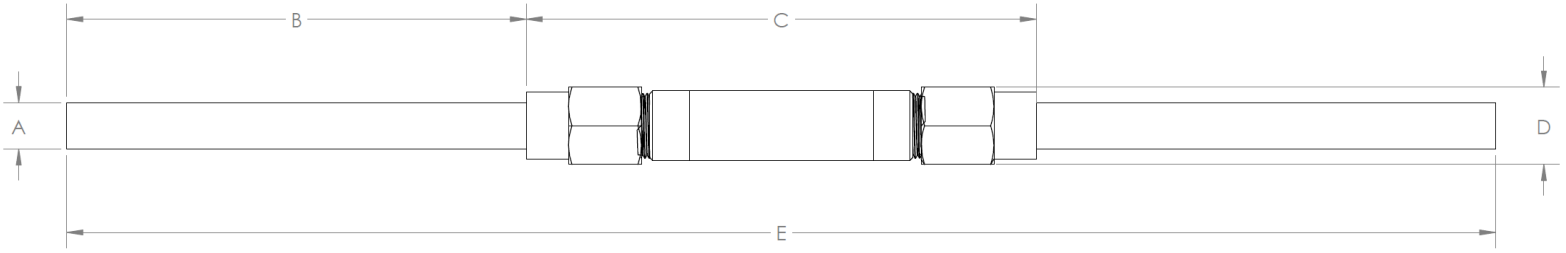
Typical Installation

- Installation must be carried out by a qualified installer
- It is recommended to install the non-conductive breaks using no-braze methods, such as press-to-connect or push-to-connect refrigerant fittings
- If brazing is required, do not shorten the length of the factory assembled copper tubing and take extra precaution to ensure excess heat does not compromise the integrity of the non-conductive assembly.
- During installation, protect non-conductive breaks from excessive mechanical forces (tension, compression, bending or twisting)
- The non-conductive breaks must be installed indoors

Typical Installation Diagram



Dimensions



Size	Part Number	Dimensions (Inches)				
		A	B	C	D	E
1/4"	NCB025025GSSCU	0.250	8.0	8.0	0.886	24.0
3/8"	NCB038038GSSCU	0.375	8.0	8.0	1.010	24.0
1/2"	NCB050038GSSCU	0.500	8.0	9.0	1.083	25.0
5/8"	NCB063100GSSCU	0.625	8.0	9.0	1.876	25.0
3/4"	NCB075075GSSCU	0.750	8.0	9.0	1.443	25.0
7/8"	NCB088075GSSCU	0.875	8.0	9.0	1.588	25.0
1-1/8"	NCB113125GSSCU	1.125	8.0	10.0	2.454	26.0
1-3/8"	NCB138125GSSCU	1.375	8.0	10.0	2.454	26.0

Technical Specifications

Install in accordance with installation guidelines. The means for connecting the open ends of the copper refrigerant tubes (brazed, press-to-connect, push-to-connect) shall be evaluated by the end-user. This product is meant to be installed indoors and is not rated for outdoor installations.

Materials used:

ACR Refrigerant Line ASTM B280
316 Stainless Steel adapter - ASTM A182/ASME SA182 and ASTM A314
Garolite G-10 Break Material - MIL-I-24768/2, UL 94HB
Epoxy adhesive 1838 Green (2-part epoxy adhesive)

EKFox Gear's non-conductive refrigerant line breaks are approved for usage with the following refrigerants and oils: R-410A, R-32, R-454B, POE, PVE.

Size availability (inches): 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1-1/8, 1-3/8.

UL recognized components where stated; File No. SA44812

CSI MasterFormat: 232300

EKFOXGEAR.COM
U.S. PATENT NO.: 11,435,108

MasterSpec®
Powered by Deltek Specpoint®

PROUDLY MADE IN THE USA

Contact Us: www.ekfoxgear.com/contact