

# ***E-Klips***

**RAIL HEATER FIXING  
AND  
CABLE MANAGEMENT  
SYSTEMS**



Rail type (mm)							
UIC 60 (11 x 150 x 172)	FRC-60-F 055/009155	FRC-60-C 055/009194	FRC-60-B 055/009158	- -	FRC-60-W -	FRC-54-LU -	FRC-60-S 055/009175
UIC 54 (11 x 140 x 159)	FRC-60-F 055/009155	FRC-60-C 055/009194	FRC-60-B 055/009158	FRC-54-H 055/009161	FRC-60-W -	FRC-54-LU -	FRC-60-S 055/009175
BS 110 (11 x 139 x 158)	FRC-60-F 055/009155	FRC-60-C 055/009194	FRC-60-B 055/009158	- -	FRC-60-W -	FRC-54-LU -	FRC-60-S 055/009175
BS 113 (11 x 139 x 158)	FRC-60-F 055/009155	FRC-60-C 055/009194	FRC-60-B 055/009158	- -	FRC-60-W -	FRC-54-LU -	FRC-60-S 055/009175
UIC 54B (20 x 147 x 129)	FRC-54B-F 055/009157	FRC-54B-C 055/009193	FRC-54B-B 055/009160	- -	- -	- -	- -
UIC 60B (20 x 140 x 134)	FRC-60B-F 055/009166	FRC-60B-C 055/009192	FRC-60B-B 055/009167	- -	- -	- -	- -
BS 95RBH (18 x 69 x 145)	FRC-95-F 055/009168	FRC-95-C 055/09191	FRC-95-B 005/009172	FRC-95-H 055/009169	- -	FRC-95-LU -	- -

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Link-up certificate  
number: 103644

Network Rail certificate number:  
PA05/02371 Issue 1

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Q06054

# E-Klips rail heater fixing and



## *Design*

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The all new E-Klips range of rail heater fixings has been extensively redesigned, based on the latest market demands and installation requirements. Strong, easy to install and lightweight, the range includes clips for a variety of rail profiles.



## *Material*

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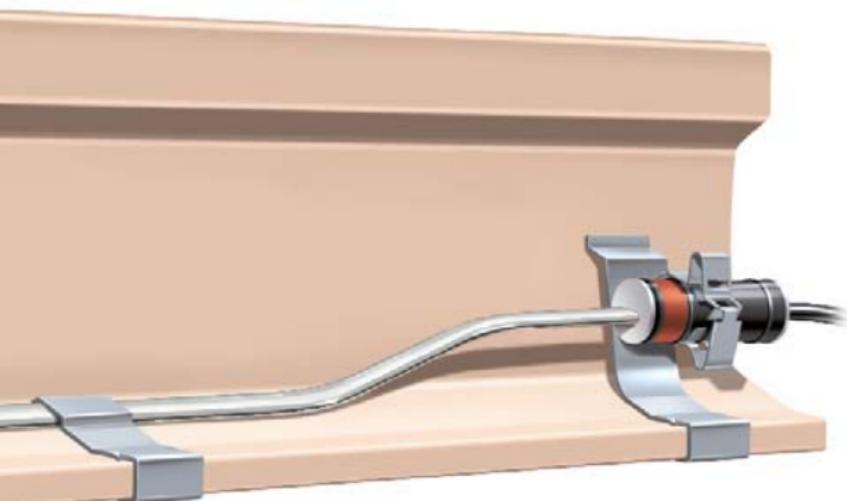
The fixings are manufactured from carbon spring steel, which has excellent shape retention properties. The material can cope with the extreme temperatures under which the clips operate, and allows the heater strip to efficiently transfer heat to the rail section.

## *Heat treatment*

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After being formed, the fixings are heat treated to create a clip with good spring qualities, a strong grip and the ability to take the force applied during installation without damage.

# cable management systems



## *Surface finish*

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The zinc based, chromium-free coating used on the fixings has the ability to withstand a 600 hour salt spray test. It is environmentally friendly and meets the requirements for a low solvent content material.

## *Strength*

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The fixings have been designed for maximum strength.

On flat-bottomed rails, the multiple points of contact exert a balanced force and their wedge shape prevents the clips from moving, even under extreme conditions.

Tests have shown that the fixings can withstand a pull-off force in excess of similar products. The unique one-piece bull head clips wrap around the rail profile to give unrivalled strength.

## *Anti-corrosion*

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The **Z600+** anti-corrosion system underwent a 600 hour salt-spray test, independently tested in accordance with ASTM.B119-03/BS 7497:1990.

The clips came out of the test with only minor signs of white corrosion and no sign of red rust.

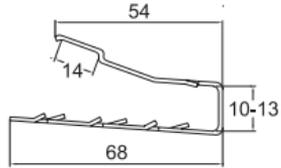
**CORROSION**  
**Z600+**  
**PROTECTION**

# UIC 60, UIC 54, BS 113, BS 110

Designed specifically to suit UIC 60, UIC 54, BS 113 and BS 110 rail section, these rail heater clips are simple to install. Like the rest of the E-Klips range, they are manufactured from carbon spring steel and finished with our unique Z600+ coating, giving them a market leading level of corrosion resistance.

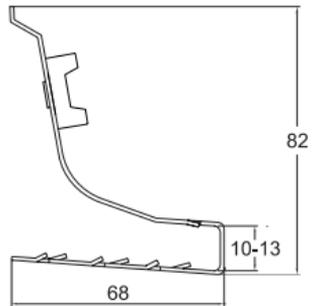
## Foot mount

### [ FRC-60-F ]



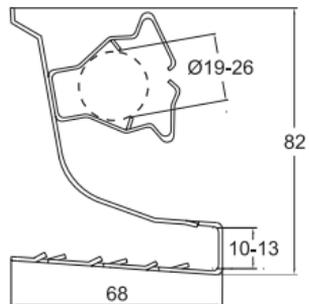
## Tie wrap

### [ FRC-60-C ]

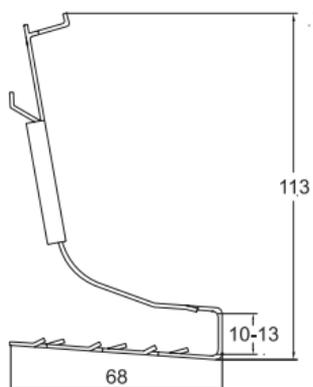


## Barrel clamp

### [ FRC-60-B ]



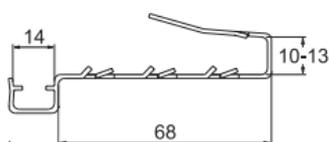
### [ FRC-54-H ]



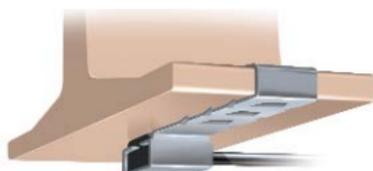
### Head mount



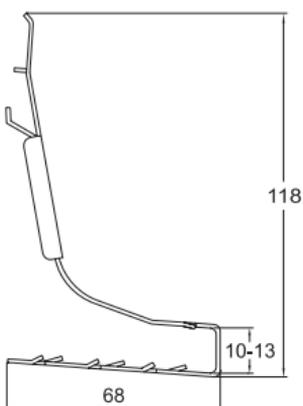
### [ FRC-60-S ]



### Temp. sensor



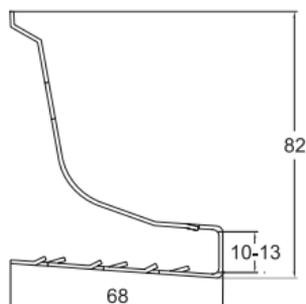
### [ FRC-60-W ]



### Web mount



### [ FRC-54-LU ]



### Cable clip



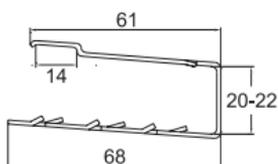
## UIC 60B

Designed specifically to suit the UIC 60B rail section, these rail heater clips are simple to install. Like the rest of the E-Klips range, they are manufactured from carbon spring steel and finished with our unique Z600+ coating, giving them a market leading level of corrosion resistance.

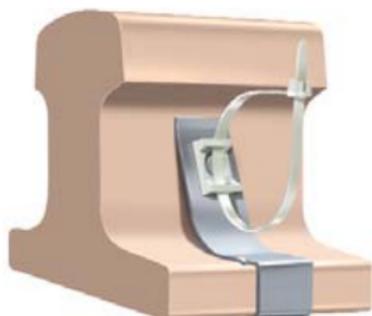
### Foot mount



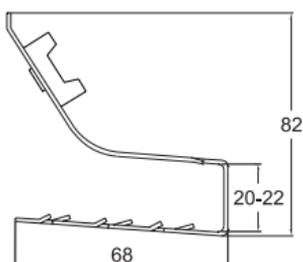
### [ FRC-60B-F ]



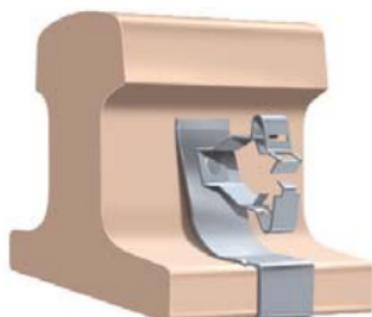
### Tie wrap



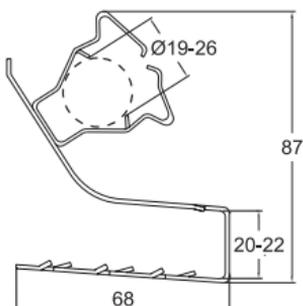
### [ FRC-60B-C ]



### Barrel clamp



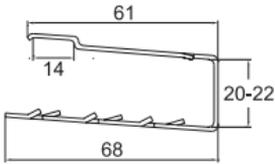
### [ FRC-60B-B ]



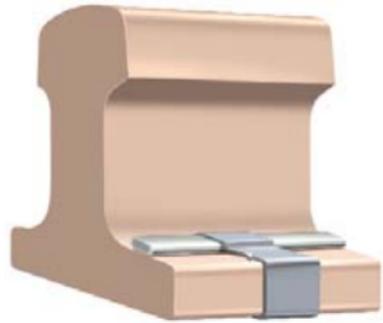
# UIC 54B

Designed specifically to suit the UIC 54B rail section, these rail heater clips are simple to install. Like the rest of the E-Klips range, they are manufactured from carbon spring steel and finished with our unique Z600+ coating, giving them a market leading level of corrosion resistance.

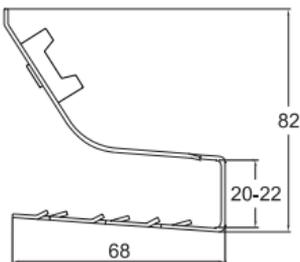
## [ FRC-54B-F ]



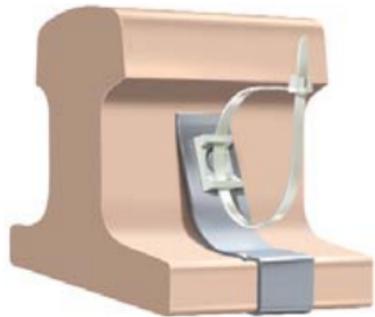
## Foot mount



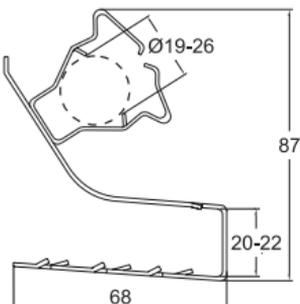
## [ FRC-54B-C ]



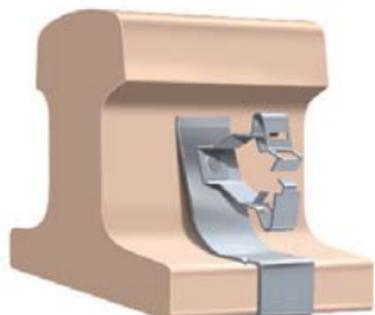
## Tie wrap



## [ FRC-54B-B ]



## Barrel clamp

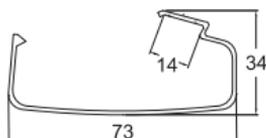
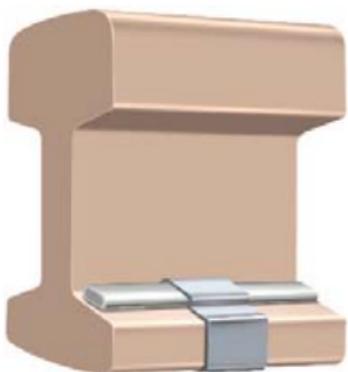


## BS 95RBH

Designed specifically to suit the BS 95RBH rail section, these rail heater clips are simple to install (using tool FRC-95-T). Like the rest of the E-Klips range, they are manufactured from carbon spring steel and finished with our unique Z600+ coating, giving them a market leading level of corrosion resistance.

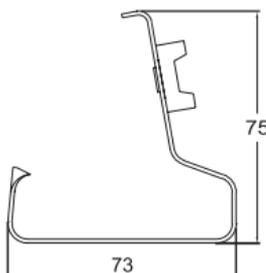
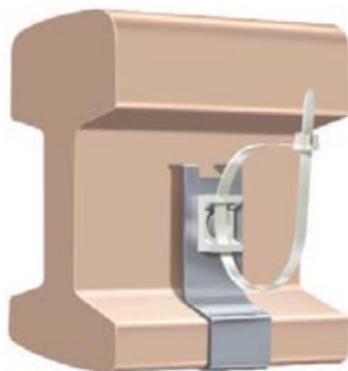
### Foot mount

[ FRC-95-F ]



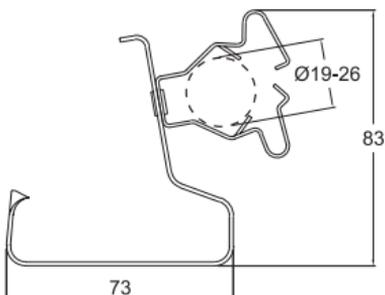
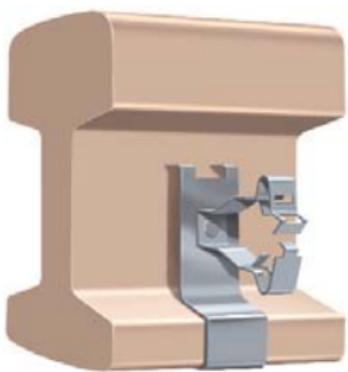
### Tie wrap

[ FRC-95-C ]

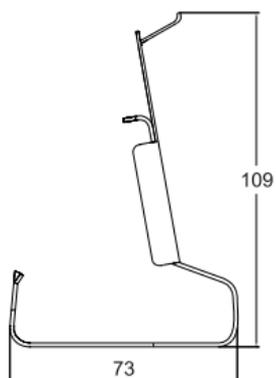


### Barrel clamp

[ FRC-95-B ]



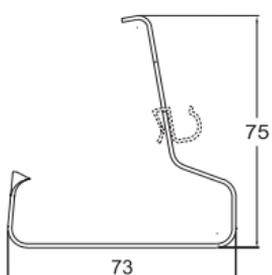
## [ FRC-95-H ]



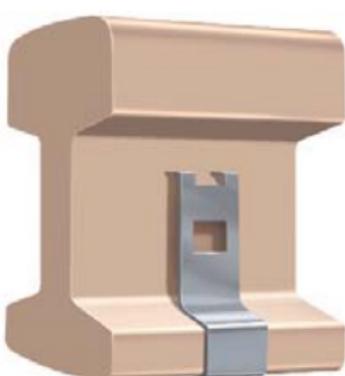
## Head mount



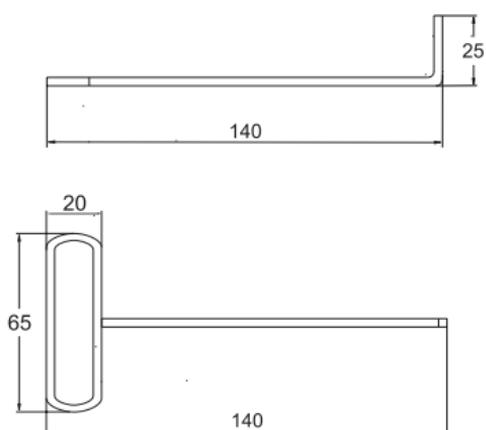
## [ FRC-95-LU ]



## Cable clip



## [ FRC-95-T ]



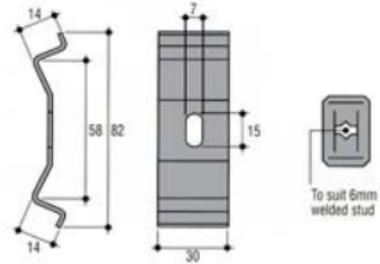
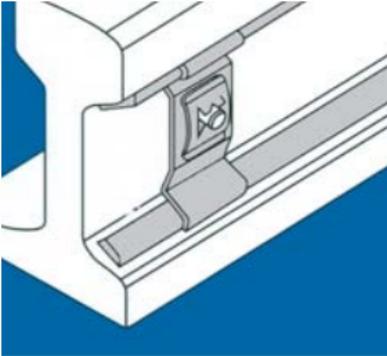
## Fixing tool

# Stud weld & FurseWELD

For applications (such as moving rails) where standard rail heater clips cannot be installed, exothermically welded studs offer a viable alternative.

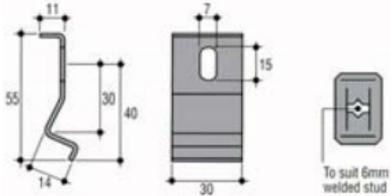
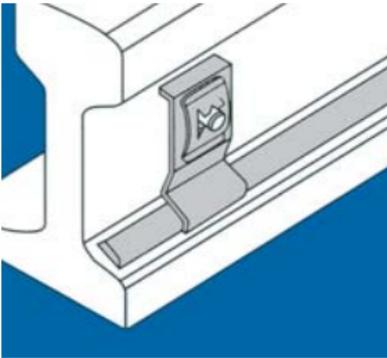
## Bull head stock

[ 55/26004 ]



## Switch rail toe

[ 55/26006 ]



## FurseWELD

FurseWELD exothermic welding is a cost efficient method of making large or small numbers of high quality electrical connections.

It is a simple, self-contained system that uses the high temperature reaction of powdered copper oxide and aluminium, within a mould, to form permanent electrical connections.



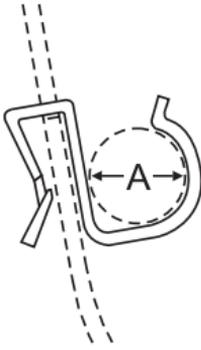
- Is completely portable
- Requires no external power or heat source
- Creates high quality electrical connections
- Can be used safely with minimum training

# Cable clips

As well as the clips dedicated to securing heater strips to the rail, additional clips are available for cable management.

## [ ECS range ]

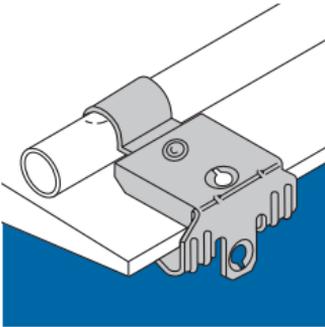
Use ECS clips in conjunction with FRC-54-LU (page 5) or FRC-95-LU (page 9) to install cable along the rails.



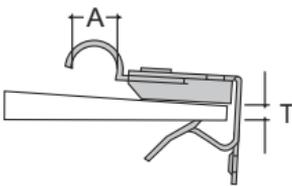
REF	A (mm)	QTY
ECS-4555	4.5-5.5	100
ECS-67	6-7	100
ECS-89	8-9	100
ECS-1011	10-11	100
ECS-1214	12-14	100
ECS-1519	15-19	100
ECS-2024	20-24	100
ECS-2532	25-32	100

## [ EH range ]

Use EH clips to install cable to all rail profiles except BS95.



REF	T (mm)	A (mm)	QTY
EH38-RCC13	3-8	13	25
EH38-RCC15	3-8	15	25
EH814-RCC13	8-14	13	25
EH814-RCC15	8-14	15	25
EH1420-RCC13	14-20	13	25
EH1420-RCC15	14-20	15	25



# Cable Ties

Ty-Rap premium cable ties with steel locking barb:

- Manufactured from Polyamide 6.6
- Available in natural and UV resistant black
- Corrosion-proof, 316 grade steel barb anchored inside the tie head guarantees a strong and durable fastening
- Low-profile head allows secure tying in tight spaces
- Vibration and shock proof



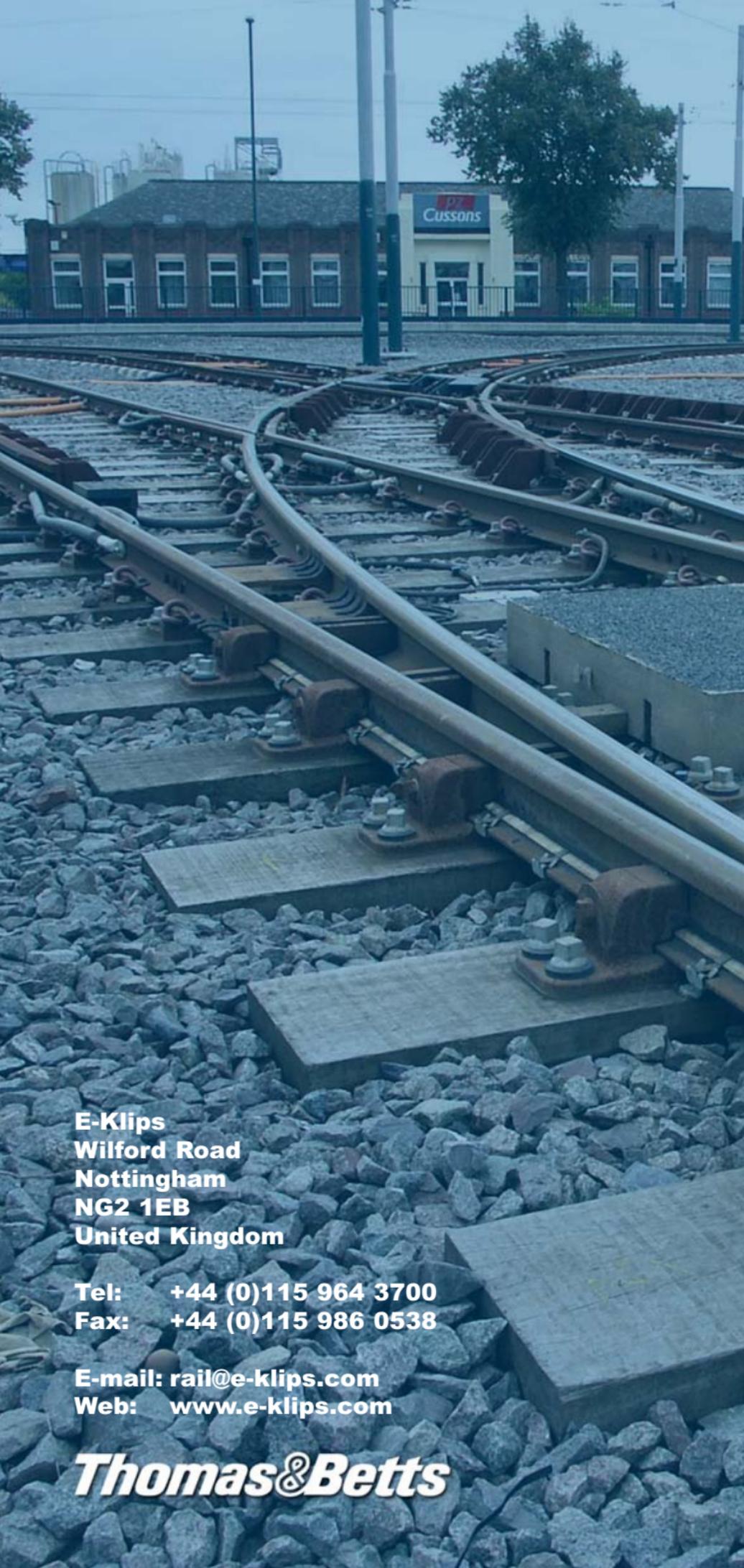
REF	Colour	Length (mm)	Bundle dia.(mm)	QTY
TY271M	Natural	150	6-31	500
TY271MX	Black	150	6-31	500
TY272M	Natural	222	6-50	500
TY272MX	Black	222	6-50	500

# Tooling

The **ERG 297** hand tool both tensions and cuts plastic cable ties. The advanced cutting mechanism allows the strap end of Ty-Rap cable ties to retract in the tie head upon cutting.

- Adjustable tension setting
- Automatic cutting
- 360° rotating nose
- Anti-recoil mechanism reduces vibration shock





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***Thomas & Betts***