



## Cool Station

# Flexible and Economic Stationary Eutectic Condensing Systems



**The system offers the following benefits:**

- Economical option
- Weight reduction
- Lower maintenance costs
- Flexibility

# Good news for users

Now, with the introduction of this new kit, it is possible to have a stationary eutectic unit simply combining a quick connector with a eutectic condensing section (F-3L or F-5L). This new system has the following features:

## Economical solution

One condensing section can be used with one, two or three vehicles sharing the cost between them to provide the economical solution.

## Weight reduction

Stationary unit significantly reduces overall vehicle weight. This means an

- Increase in payload capacity
- Reduction in fuel consumption
- Reduction in vehicle maintenance
- Reduction in driver costs as these are directly related to the weight of the vehicle

## Maintenance costs and downtime

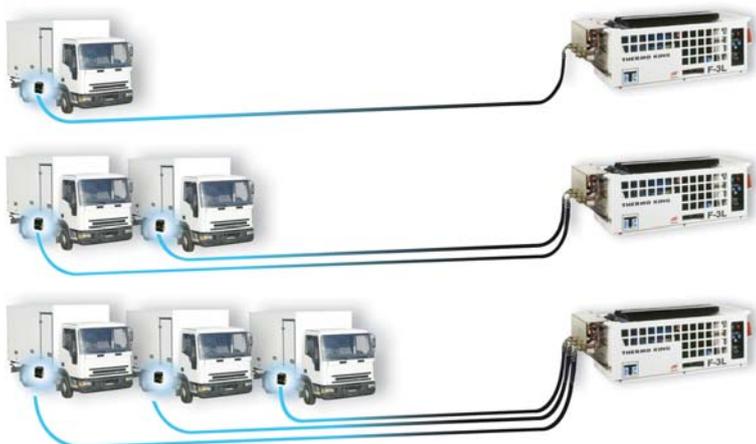
As the unit is not installed on the truck, the unit may be serviced while the truck is working. When one unit is used for more than one vehicle, the maintenance costs are reduced as only one unit needs to be serviced.

## Flexibility

Due to the availability of three different kits that function with two different eutectic condensing systems, the customer has complete flexibility to choose the option that suits their application.

- F-3L with one quick connector for use with one vehicle
- F-5L with two quick connectors for use with one or two vehicles
- F-5L with three quick connectors for use with up to three vehicles

Even when the option chosen is for three vehicle the unit will function with one, two or three vehicles connected at one time as you can see in the figure.



# of eutectic systems.

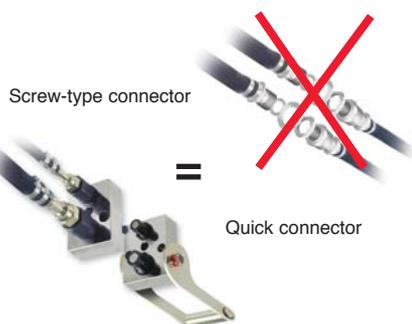


## Safety

- A warning light may be installed in the cabin, linked to the vehicle engine, ensuring that the driver does not start the engine with the connectors attached
- The connector has a cover attached to protect it from dust and dirt when mounted under the truck body

## Leak-free

- Comparing a screw-type connector with the quick connectors, the leak rate is approximately fifteen times larger.



- The leak rate for the quick connectors is of a similar level accepted for tubes and coils according to Thermo King standards.



## Kit Contents

- ✓ Quick connectors with refrigeration and electrical connections
- ✓ Unit stand
- ✓ Supporting bracket for fittings and connections
- ✓ Connecting hoses and fittings
- ✓ Condenser top grill

## A Thermo King cool station for every truck length

Because every delivery situation is different, it is important to properly match a eutectic unit to the truck body length and the distribution habits of the vehicle being equipped. The following table is a guide to assist in that process. And, as always, you will want to consult your nearest Thermo King Dealer.

Eutectic Plate (-32°C) Selection Guide

F-3L								
30°C ambient					38°C ambient			
Box Internal volume m <sup>3</sup>	K factor W/m <sup>2</sup> °C	No. Vehicles	No. Plates per Vehicles	Kit	No. Vehicles	No. Plates per Vehicles	Kit	
6	0.29	1	3	1 connector	1	4	1 connector	
6	0.35	1	3	1 connector	1	4	1 connector	
7	0.29	1	3	1 connector	1	4	1 connector	
7	0.35	1	3	1 connector	1	4	1 connector	
8	0.29	1	4	1 connector	1	5	2 connectors	
8	0.35	1	4	1 connector	1	5	2 connectors	
9	0.29	1	4	1 connector				
9	0.35	1	4	1 connector				
10	0.29	1	4	1 connector				
10	0.35	1	5	1 connector				
11	0.29	1	5	1 connector				
11	0.35	1	5	1 connector				
12	0.29	1	5	1 connector				
12	0.35	1	5	1 connector				
13	0.29	1	5	1 connector				
13	0.35	1	6	2 connectors				

F-5L								
30°C ambient					38°C ambient			
Box Internal volume m <sup>3</sup>	K factor W/m <sup>2</sup> °C	No. Vehicles	No. Plates per Vehicles	Kit	No. Vehicles	No. Plates per Vehicles	Kit	
4	0.29	3	2	3 connectors	3	3	3 connectors	
4	0.35	3	2	3 connectors	3	3	3 connectors	
5	0.29	3	2	3 connectors	3	3	3 connectors	
5	0.35	3	3	3 connectors	3	3	3 connectors	
6	0.29	3	3	3 connectors	2	4	2 connectors	
6	0.35	3	3	3 connectors	2	4	2 connectors	
7	0.29	3	3	3 connectors	2	4	2 connectors	
7	0.35	3	3	3 connectors	2	4	2 connectors	
8	0.29	2	4	2 connectors	1	5	2 connectors	
8	0.35	2	4	2 connectors	1	5	2 connectors	
9	0.29	2	4	2 connectors	1	5	2 connectors	
9	0.35	2	4	2 connectors	1	6	2 connectors	
10	0.29	2	4	2 connectors	1	6	2 connectors	
10	0.35	1	5	1 connector	1	6	2 connectors	
11	0.29	1	5	1 connector	1	7	2 connectors	
11	0.35	1	5	1 connector	1	7	2 connectors	
12	0.29	1	5	1 connector	1	7	2 connectors	
12	0.35	1	5	1 connector	1	7	2 connectors	
13	0.29	1	5	1 connector	1	8	2 connectors	
13	0.35	1	6	2 connectors	1	8	2 connectors	
14	0.29	1	6	2 connectors	1	8	2 connectors	
14	0.35	1	6	2 connectors	1	8	2 connectors	
15	0.29	1	6	2 connectors	1	9	2 connectors	
15	0.35	1	7	2 connectors	1	9	2 connectors	
16	0.29	1	7	2 connectors	1	9	2 connectors	
16	0.35	1	7	2 connectors	1	9	2 connectors	
17	0.29	1	7	2 connectors				
17	0.35	1	7	2 connectors				
18	0.29	1	7	2 connectors				
18	0.35	1	8	2 connectors				
19	0.29	1	8	2 connectors				
19	0.35	1	8	2 connectors				

### Based on:

- 4 door opening per hour
- 1 plate (-32°C): 1592 x 728 x 45 mm\*

### • R-404A refrigerant

- Plate Surface: 2.543 m<sup>2</sup> holdover 2394 kcal
- \*or similar



## Specifications

### DESCRIPTION

The FL condenser units are designed to operate a eutectic system for frozen applications on small and medium size trucks. The compressor is powered from an external A/C power source to freeze the plates. The condensing section is connected to the plates by the means of the multi-coupling quick connectors.

### MODELS AVAILABLE

F-3L and F-5L

### OPERATION

- External On/Off switch
- Automatic unit stop on freezing cycle termination

### COOL STATION COMPONENTS (OPTIONAL CONNECTOR KIT)

#### UNIT

- Condenser
- Installation kit
  - Mounting hardware
  - Power cord and receptacle
  - External thermometer
- Expansion valves available upon request

#### KIT CONTENTS

- Unit stand
- Supporting bracket for fittings and connections
- Connecting hoses and fittings
- Condenser top cover
- Quick multi-coupling connector plate(s)

#### COMPRESSOR TYPE

- Reciprocating, 2 cylinders
- F-3L: 3 HP
- F-5L: 5 HP

### REFRIGERANT

- R-404A or R-507
- Chlorine: Zero
- ODP: Zero
- Charge: 0.8 to 1kg of refrigerant per plate (Based on plate size: 1592x752x45mm - 2610 kcal) or similar

### ELECTRIC MOTORS

	F-3L	F-5L
230V/3 phase/50Hz	16.6A	21.2A
400V/3 phase/50Hz	9.6A	12.2A

## standard features

- Compressor overload relay
- Compressor motor thermal protection
- Condenser fan motor overload relay
- Large receiver tank
- Accumulator tank
- Pressure regulator valve for better compressor reliability\*
- High pressure cut out switch\*
- Low pressure cut out switch to automatically control the unit operation\*
- Electric connector
- Each vehicle can be connected at different times
- Connecting vehicles at different times may have an effect on the freezing time for the plates in the other vehicles

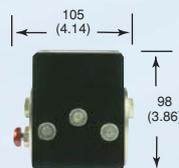
\*Adjustable during installation for maximum unit flexibility

### Dimensions millimetres (inches)



### Weights (approximate)

F-3L 154 kg  
F-5L 178 kg



### WARRANTY SUMMARY

Terms of the Thermo King Express Warranty are available on request. The unit and its components are warranted to be free from defects in material and workmanship from date in service according to the terms (in months) as specified in the Thermo King Express Warranty. Manufacturer is not responsible and will not be held liable in contract or tort (including strict liability and negligence) for any special, indirect or consequential damages including but not limited to injury or damage caused to vehicles, contents or persons, by reason of the installation or use of any Thermo King product or its mechanical failure. Specifications are subject to change without notice.



### TOTAL KARE

Because maintenance costs constitute a key variable in the Total Life Cost of a temperature control system, we now offer, through Total Kare, a complete selection of maintenance programmes. [total\\_kare@thermoking.com](mailto:total_kare@thermoking.com)



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