



BlazeCut

T Series

Catalogue





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# ABOUT US

## Company Overview

The BlazeCut Company is a Fire Suppression System manufacturer and specialist that delivers the latest in technologies. We focus on providing top performing systems manufactured to the highest quality. BlazeCut have improved the way a system can perform and protect you and your valuable assets in harsh high risk environments. Our systems are designed specifically for an application and protect all types of equipment and fixed plant.

## Manufacturing and Development

With the BlazeCut Global Head Office in Australia, our manufacturing facility in Slovakia, Central Europe and worldwide support, we can provide cost effective fire protection solutions to customers quickly and efficiently. BlazeCut systems are manufactured according to the latest ISO9001, ISO14001, AQAP Quality management and environmental standards, tested and approved by several authorities. All systems are tested at our inhouse testing facility as well as by accredited testing institutes. We are committed to customer satisfaction. Our every inquiry is held individually to provide tailor made solutions that fit our customers needs.



## Global Network

BlazeCut focuses to build a network of distribution partners in the different regions around the world to ensure that the users get the best support possible.

BlazeCut has strategically positioned local offices and Sales support personnel around the globe.



# ABOUT US

## Market & Industry Examples



Agricultural



Automotive



Airports & Aviation



Chemicals



Defense



Healthcare



Manufacturing



Marine



Mass Media



Mining



Nuclear Power



Safety & Rescue



Power Generation



Telecommunication



Renewable Energy

# FIRE KNOWLEDGE & FUNDAMENTALS

## Fire Classes

	Description	Europe	Australia	U.S.A	Russia
	Ordinary combustibles (wood, paper, fabric, refuse)	<b>Class A</b>	<b>Class A</b>	<b>Class A</b>	<b>Class A</b>
	Flammable liquids	<b>Class B</b>	<b>Class B</b>	<b>Class B</b>	<b>Class B</b>
	Burning gases	<b>Class C</b>	<b>Class C</b>	<b>Class B</b>	<b>Class C</b>
	Flammable metals	<b>Class D</b>	<b>Class D</b>	<b>Class D</b>	<b>Class D</b>
	Energised electrical equipment	<b>Not classified</b>	<b>Class E</b>	<b>Class C</b>	<b>Class E</b>
	Cooking oils and fats	<b>Class F</b>	<b>Class F</b>	<b>Class K</b>	<b>Not classified</b>

\*Check your local country regulations for the correct fire classes. The above information is for guidance only.

## Fire Triangle

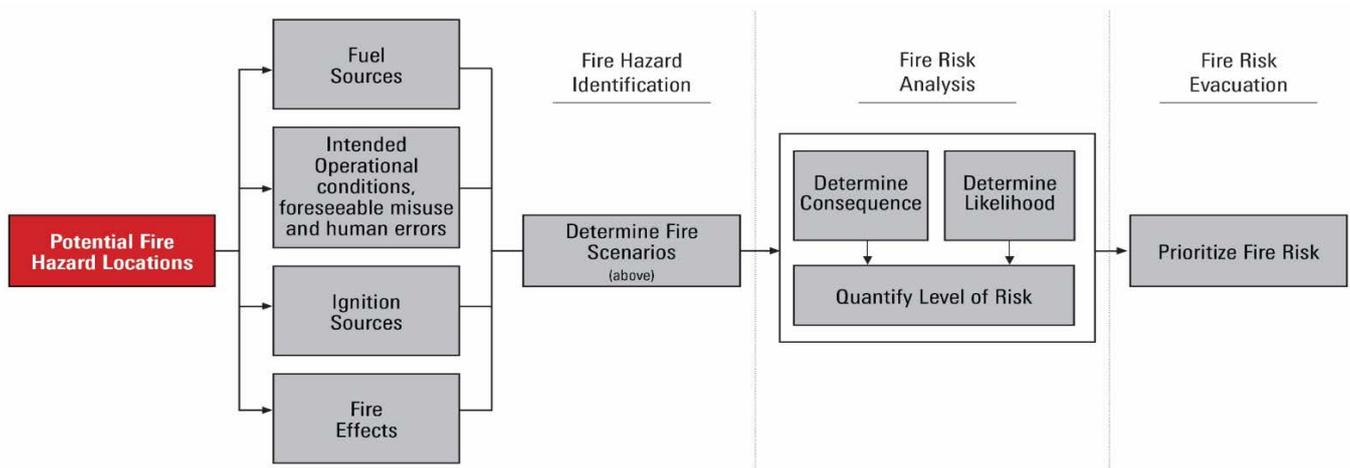


Each element of the Fire Triangle must be in place for combustion to occur. The fire is extinguished when one of the elements is removed from the reaction. The longer this takes the harder it is to suppress the fire as it transforms from a surface fire to a substance fire.

# RISK ASSESSMENTS

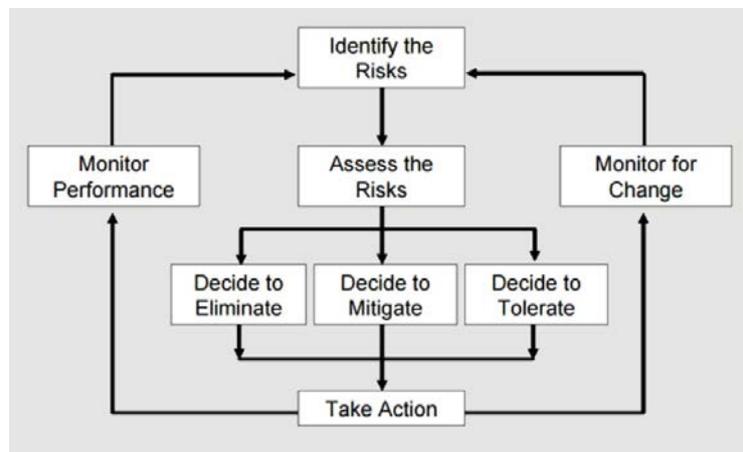
The first step before commencing any design, installation or upgrade of a fire suppression system, is to carry out a risk assessment. A Risk Assessment is an essential component of designing any fire suppression system. You need to be aware of exactly what risks need to be covered on any piece of equipment before the best solution can be achieved or the chance of something happening that will have a negative impact on the health or safety of a person and/or equipment may be increased.

A Risk assessment is the best way to identify all possible risks uniquely associated with any type of equipment assessed. Risk assessments involve a detailed and systematic examination of the equipment. The equipment's activity, location and operational system is assessed to identify any hazards.



## Risk Assessment Process

A very simple process is used to determine what is required to minimize the risks



## Risk Assessment and Control Chart

RAC Chart - Risk Assessment and Control Chart to evaluate and score the risk levels

LIKELIHOOD	CONSEQUENCE			
	CATASTROPHIC	CRITICAL	MARGINAL	NEGLIGIBLE
FREQUENT	20	18	15	5
PROBABLE	19	16	11	4
OCCASIONAL	17	13	8	3
REMOTE	14	12	7	2
IMPROBABLE	10	9	6	1
RISK SCORE	HIGH	MODERATE	LOW	VERY LOW

## T SERIES OVERVIEW

BlazeCut system operates automatically independent of any power supply by detecting higher temperatures. When the temperature in the protected enclosure rises to a critical threshold, the detection tube melts down at the point where the affecting temperature is the highest. Melting the tube creates a hole releasing the entire extinguishing agent stored in the tube onto the source of the fire.

The system consists of a heat sensitive tube made of special plastic which is closed by a stainless steel fitting on each end. The tube has both storage and detection function which means that the extinguishing agent is stored directly in the tube and no additional storage device like cylinder is needed. The system is supplied with a clean agent HFC-227ea. Typical applications include electrical enclosures or engine compartments of vehicles, machines or pleasure boats.



### The "T" Series systems are suitable for the following applications

- On-road vehicles (cars, vans, SUVs, classic cars, performance cars)
- Construction Equipment
- Agricultural & Farming
- Forklifts
- Trucks
- Generators
- Pleasure boats (inboard and outboard engines)
- and many more...



# T SERIES OVERVIEW

## Retail Ready Packaging

BlazeCut T Series system are our advanced self contained tubular style systems that are cylinder-less and easy to install. The BlazeCut T series system is conveniently supplied in a retail box ready to display in a shop front or just easy transport. The retail package comes with the T series system, user manual, heavy duty cable ties and warning labels

### Retail Ready Packaging



## Clean Extinguishing Agent

HFC-227ea clean extinguishing agent is a liquefied gas used for volume fire suppression. HFC clean extinguishing agent is discharged as a stream of gas and liquid droplets that penetrate into the fire area, ceasing the combustion process through heat absorption and a chemical interaction. HFC clean extinguishing agent is considered environmentally accepted substitute for Halon extinguishing agents used in the past, which are harmful to the ozone layer.

BlazeCut T Series system uses liquefied gas, HFC-227ea fire extinguishing agent. The extinguishing agent is a world-wide known and accepted gaseous clean agent used for total flooding fire suppression applications with very high effectivity, zero ozone depletion potential and safe to people. It is the agent of choice for protection of enclosures with advantages such as:

### Main features

- Electrically non-conductive
- Non-corrosive
- Resistant to temperature changes
- Safe for people
- Leaves no residue
- Does not damage equipment, objects or sensitive devices
- Zero ODP (Ozone Depletion Potential)

HFC-227ea Extinguishing Agent is UL Recognized and FM Approved



### Approvals

- HFC-227ea: UL recognized and FM Approved

### Application

HFC clean extinguishing agent is an agent of choice for protection of enclosures where residue may be harmful to the protected sensitive devices. The agent is suitable for Class A, Class B, Class C and Class E (electrical fires).

## Electrical Enclosures

BlazeCut "T" Series systems effectively protect electrical spaces and stop the fire from spreading outside of the protected enclosure whereby preventing severe damage and losses.

BlazeCut "T" Series systems with integrated pressure switch, add "S" as suffix when ordering. eg. Tx00ES

### The system for indoor applications in electrical enclosures can be equipped with optional components

- Integrated Pressure Switch is mounted on the opposite fitting of the tube to monitor the pressure of the system and is connected to the signaling unit.
- Signaling Unit: Simple and cost effective audio-optical signaling device.

### Typical application includes but is not limited to

- Electrical cabinets
- Fuse boxes
- IT & Telecommunication racks
- Audio-video equipment
- Battery spaces
- Network and cable installations



# APPLICATIONS

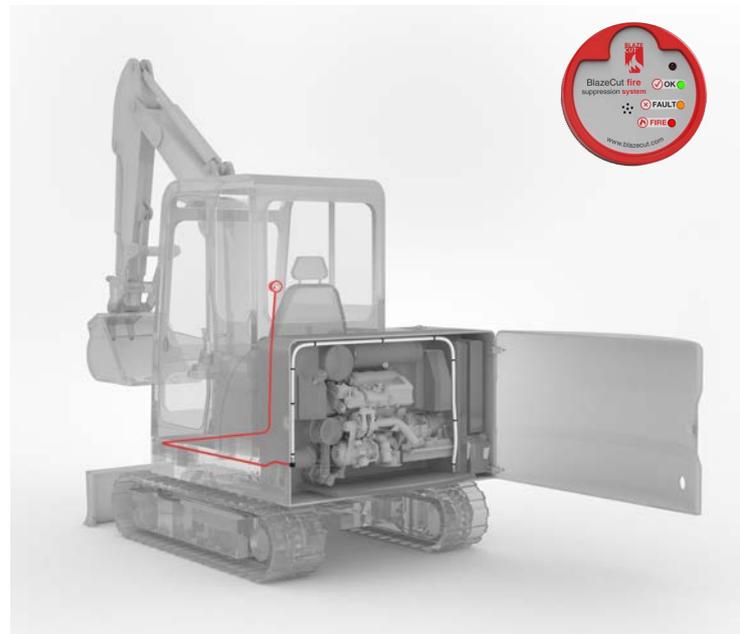
## Automotive and Mobile Machinery

Vehicle fires are an issue all over the world and the number of such fires increases each year. Majority of vehicle fires have its source in the engine compartment. The most dangerous sources of fires in the engine compartments include electrical arcing, overloaded wiring, hot surfaces, mechanical sparks, electrical sources.

The engine compartments of vehicles are one of the most critical environments due to the increased risk of fire and in terms of extinguishing. Tight space, hot environment, changing temperatures, and air flow have substantial impact on extinguishing and pose a challenge for every fire suppression system.

BlazeCut "T" Series systems help protect engine compartments by capturing the starting fire or by suppressing the fire giving the crew time for further action. Easy installation, no maintenance and affordability makes this system a perfect first line fire protection of the engine compartment of small vehicles and pleasure boats.

BlazeCut "T" Series systems with integrated pressure switch, add "S" as suffix when ordering. eg. TxxxES



## Marine

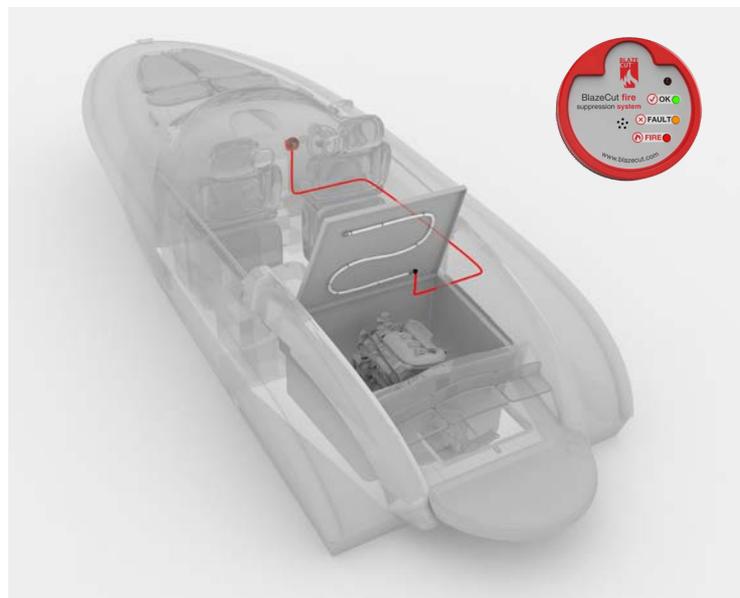
Fire systems are normally overlooked and have often been considered as too expensive. Over the years fire systems have changed to better suit what we have learnt from fires. Fire systems in the past took hours to install which also increased the expense.

With BlazeCut's modern, more intelligent design, those days are coming to an end. With BlazeCut you can protect your vessel, your family and your friends. For the small to medium boat application you can, in most cases, even fit them yourself.

BlazeCut fire systems can be installed in minutes for outboard and inboard motors. When a fire occurs, the system automatically actuates in the engine compartment, extinguishing the fire in seconds with very minimal damage to your boat.

It can be designed and installed to cover multiple risks with a single system covering the engine, electrical controls and kitchen area. This means big savings for the boat owner.

Save the invaluable and protect against injury, loss of lives and money.



"T" Series

# T SERIES FEATURES



1. System Installed



2. Fire Breakout



3. Fire Detection



4. Extinguishing



5. Fire Quenched

-  **Compact:** small footprint of the BlazeCut Tube with A, B, C and electrical fires class rating can protect almost any space
-  **No cylinder for storage required:** the whole system can be placed inside the protected enclosure as there is no cylinder
-  **Cost-effective:** long working life, automatic activation, zero maintenance beats the competition in cost-effectiveness
-  **Optional pressure switch** and other additional components like signaling unit to perform further safety functions
-  **Clean and effective extinguishing agent:** world-wide known and accepted HFC gas (HFC-227ea) fire agent
-  **No pressurisation needed:** the system works by increasing pressure of the extinguishing agent when heated
-  **Automatic operation** based on increased temperature: ideal for non-occupied spaces or spaces out of sight
-  **Fully independent:** TxxxE system is operational 24/7 without any power supply
-  **Maintenance free** during entire working life means zero maintenance costs
-  **Long working life:** up to 10 years depending on the type of application
-  **No harm** to protected enclosure and people when system discharged
-  **Simple installation:** system easily secured by cable ties or clamps
-  **Pressure gauge** to visually monitor the system pressure at anytime
-  **Minimum operation temperatures:** down to  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ )
-  **Maximum operation temperature:** up to  $90^{\circ}\text{C}$  ( $194^{\circ}\text{F}$ )
-  **Actuation temperature:** Up to  $105^{\circ}\text{C} \pm 3^{\circ}\text{C}$

### Self contained system

No maintenance required



### Stainless steel fittings

### Pressure Switch

(Optional)

### Heat sensitive BlazeCut Tube

with the extinguishing agent



### Pressure gauge

# T SERIES PART NUMBERING

## T Series System Part Number Breakdown

**T 100 ES-BLK**

### Product Line:

T T series Systems

### Tube Length:

025 0.25m System  
050 0.5m System  
100 1m System  
200 2m System  
300 3m System  
400 4m System  
500 5m System  
600 6m System

### Tube Designation:

E Standard  
EB Standard Bulk  
ES Pressure Switch  
ESB Pressure Switch Bulk  
ES-E Economy Pressure Switch  
ES-EB Economy Pressure Switch Bulk  
E-BLK Standard Black Edition  
ES-BLK Pressure Switch Black Edition



# SPECIFICATIONS

## Sizing & Types

### Sizing and Selection

Applications can be calculated by a simple process, measure the sealed enclosures **Width x Height x Depth** in metres or feet and this will calculate your required volume in m<sup>3</sup> or ft<sup>3</sup>.

Then refer to the chart below for the maximum volume protected for electrical or engine applications to select the suitable T Series model.

**Note:** the enclosure should be enclosed or have minimal ventilation. The T Series system is not suitable for open areas. For vehicle applications please refer to our application guide that can be found online at [www.blazecut.com](http://www.blazecut.com)

Model*	Maximum Volume Electrical Fires** @ 20°C (68°F)	Maximum Volume Engine Fires** @ 20°C (68°F)	Amount of Agent	System Length	Operation Temperature	Activation Temperature
T025E	0.09 m <sup>3</sup> 3.18 ft <sup>3</sup>	0.09 m <sup>3</sup> 3.18 ft <sup>3</sup>	0.05 kg ± 2 g 0.11 lb ± 0.07 oz	28 cm 11.02 in	-40°C to +90°C -40°F to 194°F	105°C ± 3°C 221°F ± 37°F
T050E	0.18 m <sup>3</sup> 6.36 ft <sup>3</sup>	0.14 m <sup>3</sup> 4.94 ft <sup>3</sup>	0.10 kg ± 2 g 0.22 lb ± 0.07 oz	53 cm 20.87 in		
T100E	0.46 m <sup>3</sup> 16.24 ft <sup>3</sup>	0.35 m <sup>3</sup> 12.36 ft <sup>3</sup>	0.25 kg ± 5 g 0.55 lb ± 0.17 oz	113 cm 44.48 in		
T200E	0.91 m <sup>3</sup> 32.14 ft <sup>3</sup>	0.69 m <sup>3</sup> 24.37 ft <sup>3</sup>	0.50 kg ± 5 g 1.10 lb ± 0.17 oz	215 cm 84.64 in		
T300E	1.37 m <sup>3</sup> 48.38 ft <sup>3</sup>	1.04 m <sup>3</sup> 36.73 ft <sup>3</sup>	0.75 kg ± 10 g 1.65 lb ± 0.35 oz	319 cm 125.59 in		
T400E	1.82 m <sup>3</sup> 64.27 ft <sup>3</sup>	1.39 m <sup>3</sup> 49.09 ft <sup>3</sup>	1.00 kg ± 10 g 2.20 lb ± 0.35 oz	422 cm 166.14 in		
T500E	2.28 m <sup>3</sup> 80.52 ft <sup>3</sup>	1.73 m <sup>3</sup> 61.09 ft <sup>3</sup>	1.25 kg ± 10 g 2.76 lb ± 0.35 oz	526 cm 207.09 in		
T600E	2.73 m <sup>3</sup> 96.41 ft <sup>3</sup>	2.08 m <sup>3</sup> 73.45 ft <sup>3</sup>	1.50 kg ± 10 g 3.31 lb ± 0.35 oz	630 cm 248.03 in		
T025ES	0.09 m <sup>3</sup> 3.18 ft <sup>3</sup>	0.09 m <sup>3</sup> 3.18 ft <sup>3</sup>	0.05 kg ± 2 g 0.11 lb ± 0.07 oz	35 cm 13.78 in	-20°C to +80°C -4°F to 176°F	100°C ± 2°C 212°F ± 36°F
T050ES	0.18 m <sup>3</sup> 6.36 ft <sup>3</sup>	0.14 m <sup>3</sup> 4.94 ft <sup>3</sup>	0.10 kg ± 2 g 0.22 lb ± 0.07 oz	60 cm 23.62 in		
T100ES	0.46 m <sup>3</sup> 16.24 ft <sup>3</sup>	0.35 m <sup>3</sup> 12.36 ft <sup>3</sup>	0.25 kg ± 5 g 0.55 lb ± 0.17 oz	120 cm 47.24 in		
T200ES	0.91 m <sup>3</sup> 32.14 ft <sup>3</sup>	0.69 m <sup>3</sup> 24.37 ft <sup>3</sup>	0.50 kg ± 5 g 1.10 lb ± 0.17 oz	222 cm 87.40 in		
T300ES	1.37 m <sup>3</sup> 48.38 ft <sup>3</sup>	1.04 m <sup>3</sup> 36.73 ft <sup>3</sup>	0.75 kg ± 10 g 1.65 lb ± 0.35 oz	326 cm 128.34 in		
T400ES	1.82 m <sup>3</sup> 64.27 ft <sup>3</sup>	1.39 m <sup>3</sup> 49.09 ft <sup>3</sup>	1.00 kg ± 10 g 2.20 lb ± 0.35 oz	429 cm 168.89 in		
T500ES	2.28 m <sup>3</sup> 80.52 ft <sup>3</sup>	1.73 m <sup>3</sup> 61.09 ft <sup>3</sup>	1.25 kg ± 10 g 2.76 lb ± 0.35 oz	533 cm 209.84 in		
T600ES	2.73 m <sup>3</sup> 96.41 ft <sup>3</sup>	2.08 m <sup>3</sup> 73.45 ft <sup>3</sup>	1.50 kg ± 10 g 3.31 lb ± 0.35 oz	637 cm 250.79 in		

\*Letter "S" in model designation stands for an integrated pressure switch that allows connection of a signaling device or to perform a shutdown operation at time of agent discharge. TxxxE does not require power.

\*\* Calculated design concentration 7% (Electrical Fires) and 9% (Engine Fires) and an ambient temperature of 20°C (68°F) for the enclosure. Please note if a lower temperature is present the coverage potential will be reduced, please contact your local BlazeCut agent for further information.



"T" Series

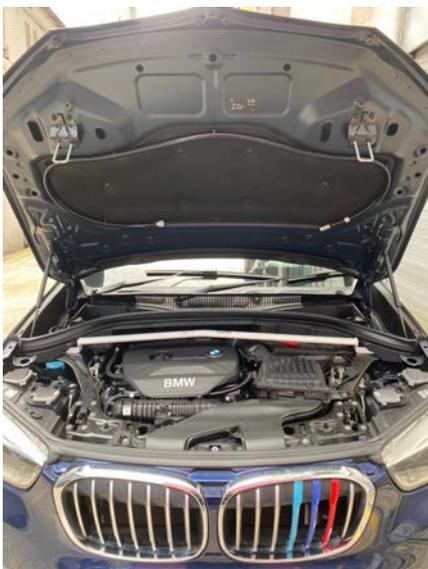
## AUTOMOTIVE BLACK SERIES

BlazeCut are offering a "Stealth Black T Series Fire Suppression System" for Automotive applications. The product offers the same high levels of protection that the traditional white offers. Customers have been asking for a black tube to blend into the engine bay and does not draw attention away from a great looking engine. We are extremely fortunate to be a part of the automotive space, we are regularly sent photos of installations by our customers.

This is now available now in 3 sizes, T200E-BLK, T300E-BLK and T400E-BLK.



-  **Compact;** small footprint can protect almost any space
-  **Optional pressure switch;** and signaling unit to perform further safety functions
-  **Clean and effective extinguishing agent;** world-wide known and accepted HFC gas
-  **Fully independent;** TxxxE system is operational 24/7 without any power supply
-  **Maintenance free;** during entire working life means zero maintenance costs
-  **Long working life;** up to 10 years depending on the type of application



"T" Series

# OPTIONAL ACCESSORIES

## Pressure Switch

Sends electronic signal when the system is discharged. The pressure switch sends a signal to the external control unit or can signal external systems. (this must be ordered with the T series unit and cannot be retrofitted to a standard unit). Order as TxxxES



## Alarm Panel

Small 50mm diameter Alarm panel 9-36v DC, IP65, CE, EMC tested. Simple and robust alarm panel in aluminum case. In dash or external installation. Without fire button for T Series



## Warning Buzzer

Compact Warning buzzer with LED ring, approximately 25mm in diameter, 12V dc, 80dB(@1m), IP54. -20 to +50°C, stainless steel. Suitable for fixed and mobile installations.



## Sounder and Beacon

Combined sounder and beacon provides an audio-visual warning which is suitable for places where high sound output and visual indication is required. IP44 rated.



## Beacon

Red xenon beacon for greater visibility in case of activation of the system. IP65 rated.



## Multi Tone Sounder

Multi tone and high sound output for audible fire alert. IP65 rated.



## Signalling Unit

Simple and cost effective audio-optical signaling device.



## Back up Power Unit

For applications using a TAP200 panel. Delivering an uninterrupted supply of power to the alarm panel in the case of a mains power supply failure, the battery back-up is activated immediately, and supplies a stabilised voltage.



## Consumables

Various cable ties, grommets, break-through panels, mounting clamps and other installation material is available for easy installation.





## Global Head Office

📍 Australia, Sydney  
✉ sales@blazecutgroup.com  
☎ +61 2 8006 1300  
👁 BlazeCut.com

## Regional Sales Offices

Chile  
Philippines  
Singapore  
Spain  
Sweden  
Thailand  
Turkey  
USA

## Production Facility:

**BlazeCut s.r.o.**  
Slovakia



## Quality Assurance

The BlazeCut s.r.o production facility is ISO 9001, ISO 14001 and AQAP 2110 certified.



**AQAP**  
2110

## Tested and Approved Products

- CE Approval
- Certificate of Conformity with design documentation
- Performance and technical specification testing in accredited testing institute: Strojírenský zkušební ústav, s.p., Czech Republic



UNECE R107  
Approved System

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