



# Small Application



# T SERIES SYSTEM DESCRIPTION

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.

These systems are supplied with clean agents HFC-227ea or HFC-236fa.

Typical applications include electrical enclosures or engine compartments of vehicles, machines or pleasure boats.



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# **EXTINGUISHING AGENTS**

# HFC Clean Agent

HFC 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.

#### 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)

#### Types of HFC clean extinguishing agents used

HFC-227eaHFC-236fa



#### Approvals

HFC-227ea: UL recognized and FM Approved HFC-236fa: UL recognized

#### 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 (creating flames), Class B, Class C and Class E (electrical fires).

## **RETAIL PACKAGING**

The BlazeCut product is convenietly packaged in a retail friendly box for any end-user to easily install the system into their application themselves. Each retail package includes the BlazeCut "T" Series unit, installation/operation manual and mounting accessories.



## **FEATURES**



1. System Installed

2. Fire Breakout

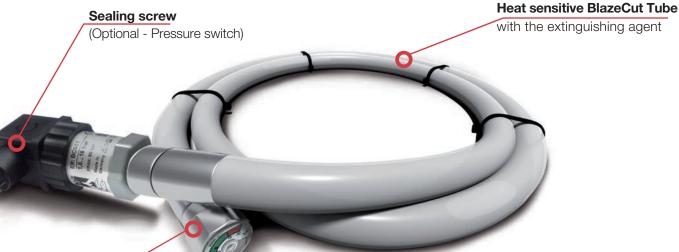
3. Fire Detection

4. Extinguishing



Universal use: high flexibility of BlazeCut Tube and A, B, C and electrical fires class rating can protect almost any space High cost-effectivity: zero maintenance, long working life, automatic activation beats the competition in cost-effectivity No cylinder for storage of extinguishing agent needed: the whole system can be placed inside the protected enclosure Options to connect a pressure switch and other additional components like signaling unit to perform further functions Clean and effective extinguishing agent: world-wide known and accepted HFC gases (HFC-227ea and HFC-236fa) No pressurization 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: system is operational 24/7 without any power supply No maintenance during entire working life = zero maintenance costs Self contained system Long working life: 5 – 10 years depending on the type of application No maintenance required No harm to protected enclosure and people when discharged Simple installation: no pressurisation required for installation Pressure gauge to monitor the pressure at any time Low operation temperatures: up to -40°C Activation temperature: about 120°C

Stainless steel fittings



Pressure gauge



# ELECTRICAL ENCLOSURES

# TDx00EA Types

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.

SIZING SPECIFICATION						
Type of system	Extinguishing Agent	Amount of extinguishing agent (kg)	Length of the system (cm)	Outside diameter of the tube (mm)	Max. volume of the protected enclosure (m <sup>3</sup> )	Operation Temperature (°C)
TD100EA	HFC-227ea	0.25	110		0.20-0.30	-40°C to +60°C
TD200EA	HFC-227ea	0.50	212	10	0.40-0.60	-40°C to +60°C
TD300EA	HFC-227ea	0.75	316	18	0.60-0.87	-40°C to +60°C
TD400EA	HFC-227ea	1.00	419		0.78-1.16	-40°C to +60°C

BlazeCut "T" Series systems with integreated pressure switch, add "S" as suffix when ordering. eg. TDx00EAS

# 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 Units:
- 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







# ENGINE COMPARTMENTS

# TVX00FA Types

BlazeCut "T" Series systems help protect engine compartments by capturing the staring 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.

SIZING SPECIFICATION						
Type of system	Extinguishing Agent	Amount of extinguishing agent (kg)	Length of the system (cm)	Outside diameter of the tube (mm)	Max. volume of the protected enclosure (m <sup>3</sup> )	Operation Temperature (°C)
TV100FA	HFC-236FA	0.25	110		0.22-0.35	-40°C to +80°C
TV200FA	HFC-236FA	0.50	212		0.43-0.70	-40°C to +80°C
TV300FA	HFC-236FA	0.75	316	18	0.65-1.04	-40°C to +80°C
TV400FA	HFC-236FA	1.00	419		0.86-1.40	-40°C to +80°C

BlazeCut "T" Series systems with integreated pressure switch, add "S" as suffix when ordering. eg. TVx00FAS

#### 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...





# **OPTIONAL ACCESSORIES**

# PRESSURE SWITCH

#### Integrated option

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 TDx00EAS or TVx00FAS

## Panel Signaling Unit TAP200

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

# SIGNALING UNIT

### ASU001

Simple and cost effective audio-optical signaling device.



# SOUNDER AND BEACON

#### ASU002

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.





Itomatic fire

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



## MULTITONE SOUNDER ASR001

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



## DETECTORS ASD and AHD

Smoke detector or combined smoke and heat detector with self-diagnostic function to prevent false alarms.





#### Cable Ties, Clamp & Mounts

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





# OTHER TYPES OF BLAZECUT SYSTEMS



# BlazeCut C Series for vehicles and mobile machinery

Ask your local BlazeCut representative about our "C" Series Systems that can be installed to protect the engine compartment of any vehicle or machine ranging from standard truck or van to heavy forestry or mining machine.

This product line is supplied in foam, powder or HFC clean agent version.

Systems for vehicles and machines are specially designed to sustain harsh environments and are supplied as a ready-to-install kits.

#### Typical vehicle and machine applications include

- Buses and coaches
- Trucks and vans
- Construction vehicles
- Agricultural vehicles
- Mining machines
- Forestry machines
- Military vehicles
- Police vehicles
- Marine
- Trains
- Other



# OTHER TYPES OF BLAZECUT SYSTEMS



### BlazeCut C Series for electrical, industrial and manufacturing

BlazeCut provides automatic fire suppression systems for indoor protection through its BlazeCut "C" Series local application systems. The systems are supplied with Novec 1230 fluid and HFC clean agents, which are the best choice for protection of sensitive devices since they leave no residues after extinguishing. Additionally, the agent is completely non-corrosive, electrically non-conductive and safe for people. For special applications like commercial kitchens the systems are supplied with the foam agent.

#### Typical applications include

- CNC machines
- Server racks
- Electrical cabinets
- Commercial kitchens
- Fume cabinets
- Power generators
- Telecom tower shelters
- Ventilation devices
- Elevator engine rooms
- Power supplies
- Wind turbines
- Gas and oil control stations
- Recharging stations
- Paint and chemical storage
- ATMs and ticket machines
- Other

#### Advantages

- High cost-effectiveness in comparison to the value of protected assets
- Automatic operation without any power supply
- Fast detection and high extinguishing efficiency
- Easy installation
- Low maintenance costs
- High variability to protect any enclosure
- Long operation lifespan
- Designed to sustain harsh environments
- Environmentally friendly and harmless extinguishing agents
- Safe for people







# FIRE CLASS RATINGS

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

## FIRE BASICS

## THE 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.



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# NOTES


### **BlazeCut Sales Locations**

#### **Global Head Office**

- ♥ Australia, Sydney
- ➡ sales@blazecut.com
- www.blazecut.com

### **Regional Sales Offices**

- ♥ United States, Oregon
- ♀ United Kingdom, London
- ♀ Germany, Neckarsulm
- ♀ Singapore, Jurong
- ♥ Chile, Santiago

### **Production Facility:**

#### BlazeCut s.r.o.

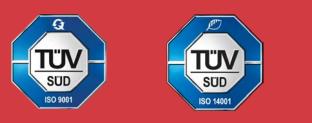
Slovakia, Bernolákovo

BlazeCut<sup>®</sup> is a registered Trademark of BlazeCut s.r.o.



## **Quality Assurance**

The BlazeCut s.r.o production facility is ISO 9001:2009, ISO 14001:2005 and AQAP 2110:2009 certified.





## **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





