

# VIGILEX®

SAFETY PROTECTION By **STIF**

## EXPLOSION PROTECTION



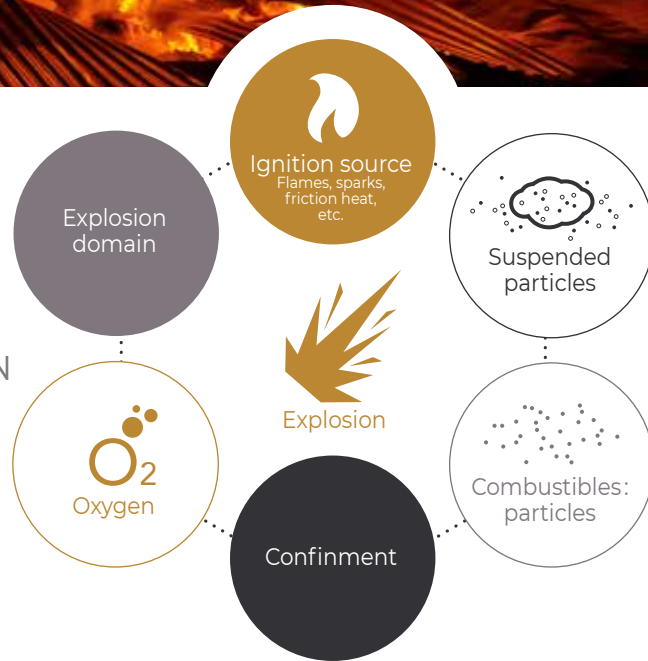
**STIF**

components for your success

English



THE SIX REQUIREMENTS FOR A DUST EXPLOSION



**Explosion venting** is one of the most common and effective forms of explosion protection. Relieving the overpressure from a potential industrial explosion and providing a planned pathway for the expanding gases to escape.

**WHAT IS A DUST EXPLOSION ?**

- It begins with the ignition of a fuel which burns instantaneously
- An explosion produces and release a large cloud of gas or dust
- An explosion does not require a flame
- A vessel can bursts from increased internal pressure, and then it 's called an explosion

**WHAT IS AN EXPLOSION VENTING ?**

- A designed weak point in a pressure system
- Limit the explosion overpressure by releasing unburned mixture and products of combustion
- Panels do not prevent an explosion they prevent the vessel from over pressure by allowing us to control the maximum pressure
- A non-reclosing pressure relief device to discharge outside the explosion energy
- designed to fail at a pre-determined pressure

# VIGILEX explosion protection devices are designed by the **STIF** company, who are specialists in the manufacture of components for the bulk handling industry.

Established in 1984 the **S.T.I.F.** Company has earned a solid international reputation by exporting to more than 60 countries.

The 10 000 m<sup>2</sup> production facility and global headquarters is based in the west of France near ANGERS, 80 km from the port of NANTES-ST NAZAIRE.

Following the successful launch of the explosion vent panels several years ago the company introduced the **VIGILEX VQ Flameless Venting**. This new explosion protection device is designed to protect personnel and equipment from the effect of an explosion within a plant environment also to replace the costly generally used ductwork solution that conveys the explosion outside the building. The **VIGILEX VQ** is the first Flameless venting in the market to be approved following the new standard **EN16009** (Flameless explosion venting devices).

With technical expertise in dust explosion STIF provides a comprehensive service to offer help and advice on your particular project.

Our website [www.vigilex.eu](http://www.vigilex.eu) is an open source platform which allows you to download drawings of each panel, a questionnaire form is also available with all of the information required to define the vent area to protect your equipment (Filters, Dust Collectors, Silos, Elevators).

From our modern in house test facility we offer pressure test certificates along with certificates of conformity following the latest standards.

Our staff pride themselves on offering you, the customer a first class product and service.

## CERTIFICATIONS

Ex II GD

EN 14491-2012/ EN 14994-2007/ EN 14797-2007/ EN 11271-2011

EN 16009-2011

EU Certificate: INERIS 15ATEX0001X

EU Certificate: INERIS 14ATEX0049X

Production quality assurance notification: INERIS 08ATEXQ406



# CERTIFICATIONS, CALCULATION & **TESTS**

The **VIGILEX explosion vent panels** and **flameless venting** are ATEX approved products certified by the French notified body INERIS.



STIF is the only French company to have **EU certificate** for this kind of products. STIF is also certified **ISO 9001 AFAQ**.

In the event of an explosion the vent panels are designed to evacuate the pressure in order to protect both the workforce and surrounding facilities. The Vigilex explosion vent panels offer a simple and efficient protection system which is designed to resist vacuum under cycling conditions and can be used in silos, cyclones, filters units and vessels.



## CALCULATION

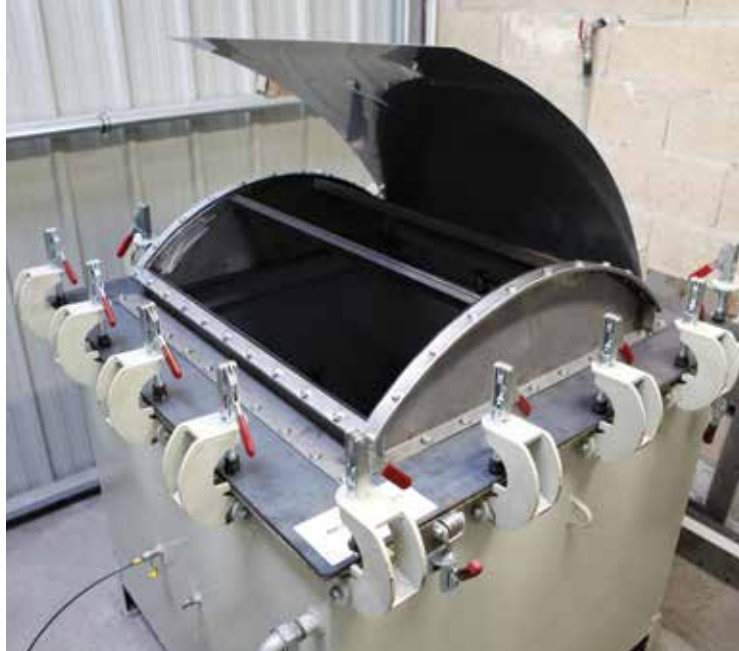
We determine for you the surface areas of the vents to be placed in your installations to be protected. Thanks to the main specific information related to the characteristics of your installations (KST, Predmax, Pmax, your installations size, etc.), which you will indicate to us. We can calculate the safety area adapted to your needs and conforming to the standards **EN14491**, **EN14994**, **VDI3673** and **NFPA 68**.

And, backed by our experienced technical department, we can offer a comprehensive service to guide you in your choices and optimize your investments.



## VENT PANEL EXPLOSION TEST

*STIF delivers conformity declarations by testing each explosion vent panel in its own test room.*



## DIRECTIVE: 2014/34/UE



## QUALITY CONTROL

We test the vent panels in our factory according to **EN 14 797**. These panels are manufactured under the EU examination certificate type Ineris **15ATEX0001X**, **14ATEX0049X** and the quality management system of the company is certified by the EU quality certification Ineris **08ATEXQ406**.

Our range of products are supplied with a certificate of conformity complete with burst test results along with installation guidelines.

## CERTIFICATIONS

### EXPLOSION VENT PANEL STANDARD

- Ex II GD
- EN14 491 / EN14 994 / EN14 797 / EN1127.1
- EU Type examination certificate:  
INERIS 15ATEX0001X
- Production quality assurance notification:  
INERIS 08ATEXQ406

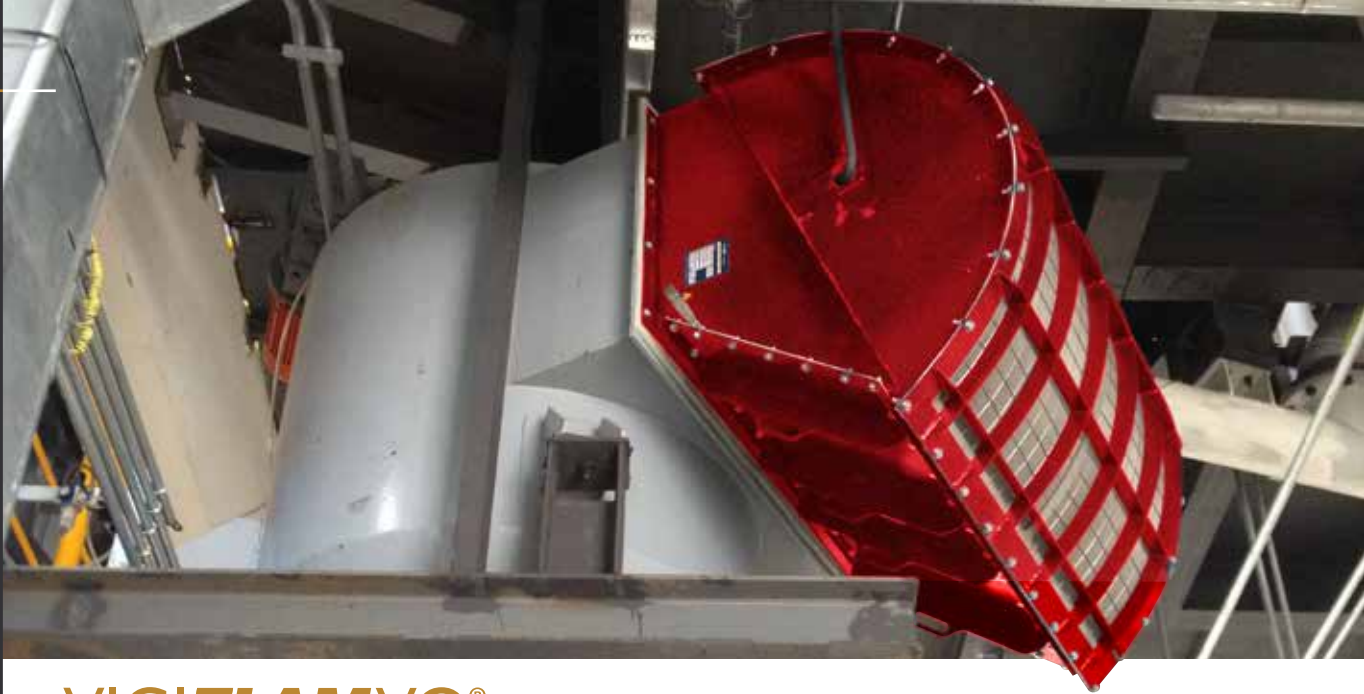
## CERTIFICATIONS

### FLAMELESS DEVICES STANDARD

- Ex II GD / Ex II 2 D
- EN 16009
- EU type examination certificate:  
INERIS 14ATEX0049X
- Production quality assurance notification:  
INERIS 08ATEXQ406

### CERTIFIED FOR:

- Organic dust
- Fiber dust
- Metal dust
- Gas



## VIGIFLAMVQ® EXPLOSION ISOLATION VALVE

### APPLICATIONS

The VIGIFLAM VQ is a rectangular flameless device connected with an internal standard panel VIGIFLAM bursting panel.

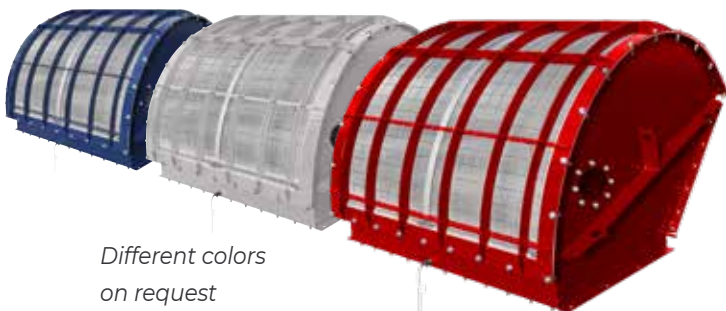
It can be used with great effect indoors and outdoors and is a fast and easy solution instead of cumbersome and expensive solutions with pipe installations to the open air.

VIGIFLAM VQ can eliminate the spread of flame and glowing particles. During the early stage of an explosion the explosion vent opens. The flame, burned and unburned dust enter the flame arrester element. Flame propagation beyond the VQ is prevented by energy dissipation in the filter element, reducing the burning fuel below its ignition temperature.

The dust is retained within the VQ and gases from the explosion are vented through the device into the external atmosphere around the device.

#### STANDARD CHARACTERISTICS

- VL flat vent panel or VD domed vent panel included
- Mild steel body + coating
- Stainless steel mesh
- Burst sensor VIGILEX INR included



Different colors  
on request

#### CERTIFICATIONS

Ex II GD  
Ex II 2 D

EN 16009

EC Certificate: *INERIS 14ATEX0049X*

Production quality assurance notification:  
*INERIS 08ATEXQ406*

#### CERTIFIED FOR:

- Organic dust
- Fiber dust
- Gas



#### ACCESSORIES for VIGIFLAM VQ

- Sanitary Cover



- Body made of stainless steel  
(See page 17)

Flameless dimensions: **VIGIFLAMVQ LW**® Light weight - Pred: 0,5 bar  
**VIGIFLAMVQ HW**® Heavy weight - Pred: 2,3 bar

## FLAMELESS

### VIGIFLAM VQ SPECIFICATIONS

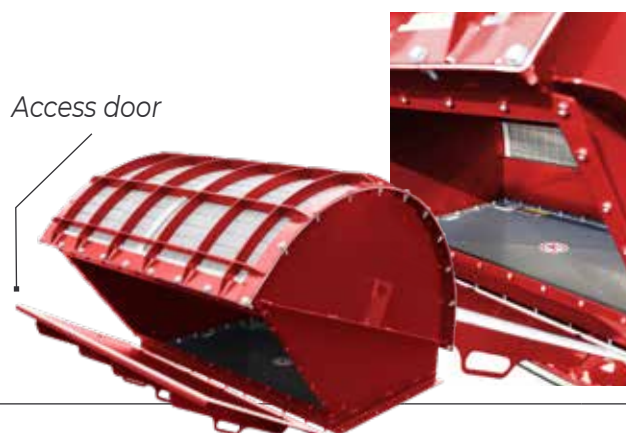
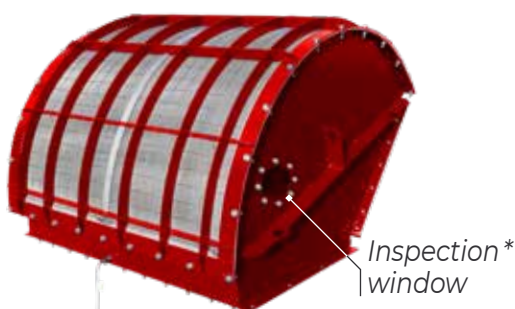
VIGIFLAM VQ		IN COMBINATION WITH VENT PANEL				BOLT SPECS	
MODEL		Nominal Size (mm/inch)		Nominal Square (m²/ft²)		Qty	Size
VIGIFLAM VQ	170x470	170 x 470 mm	7 x 19 in	0,0785 m²	0,845 sq ft	20	M10 x 30
VIGIFLAM VQ	270x458	270 x 458 mm	11 x 18 in	0,1220 m²	1,315 sq ft	22	M10 x 30
VIGIFLAM VQ	300x500	300 x 500 mm	12 x 20 in	0,1480 m²	1,595 sq ft	24	M10 x 30
VIGIFLAM VQ	305x610	305 x 610 mm	12 x 24 in	0,1840 m²	1,980 sq ft	26	M10 x 30
VIGIFLAM VQ	350x650	350 x 650 mm	14 x 26 in	0,2250 m²	2,425 sq ft	26	M10 x 30
VIGIFLAM VQ	490x590	490 x 590 mm	19 x 23 in	0,2865 m²	3,084 sq ft	32	M10 x 30
VIGIFLAM VQ	610x610	610 x 610 mm	24 x 24 in	0,3695 m²	3,975 sq ft	32	M10 x 30
VIGIFLAM VQ	457x890	457 x 890 mm	18 x 35 in	0,4040 m²	4,349 sq ft	34	M10 x 30 <b>NEW</b>
VIGIFLAM VQ	586x920	586 x 920 mm	23 x 36 in	0,5360 m²	5,770 sq ft	42	M10 x 30
VIGIFLAM VQ	645x1130	645 x 1130 mm	25 x 44 in	0,7250 m²	7,804 sq ft	34	M10 x 30 <b>NEW</b>
VIGIFLAM VQ	920x920	920 x 920 mm	36 x 36 in	0,8425 m²	9,068 sq ft	50	M10 x 30 <b>NEW</b>
VIGIFLAM VQ	1130x1130	1130 x 1130 mm	44 x 44 in	1,2720 m²	13,696 sq ft	58	M10 x 30 <b>NEW</b>

### TECHNICAL INFORMATION

VIGIFLAM VQ LW	Kst max 500	Pmax ≤ 10 bar	Pred ≤ 0,5 bar	Pstat = 0,1 to 0,3 bar
VIGIFLAM VQ HW	Kst max 500	Pmax ≤ 10 bar	Pred ≤ 2,3 bar*	Pstat = 0,1 to 0,5 bar

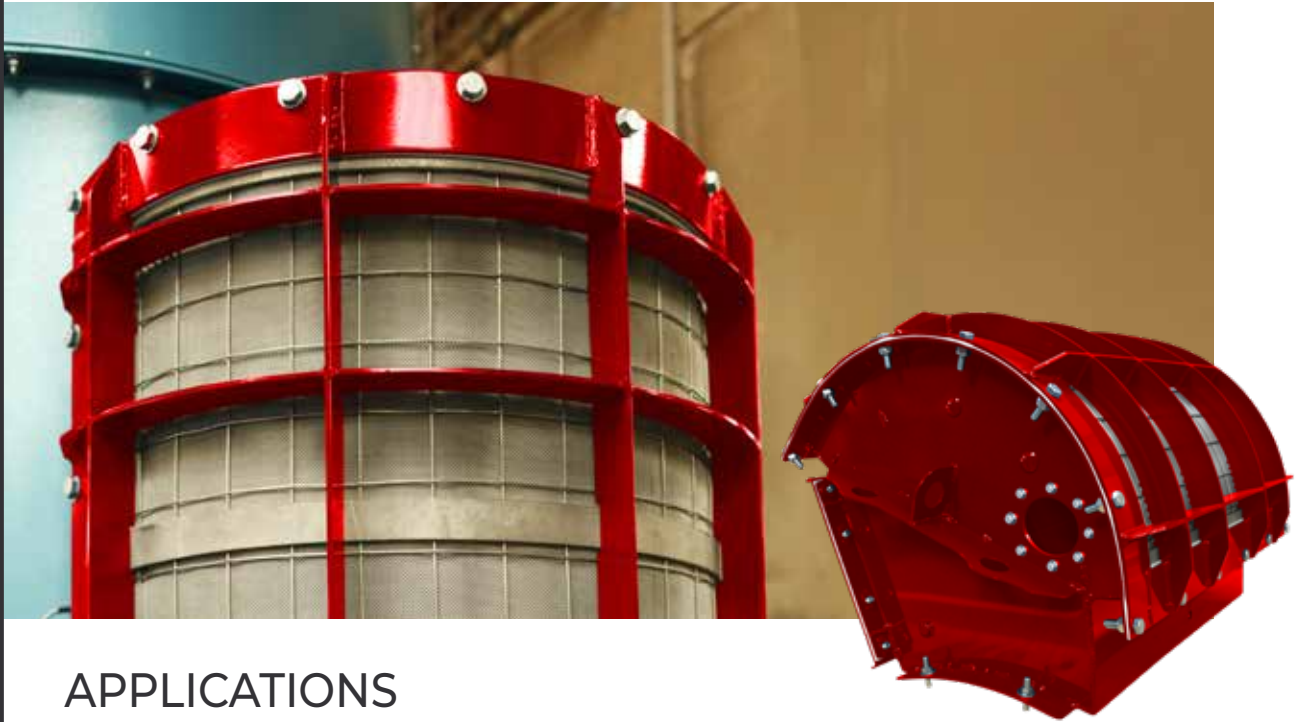
\*Pred < 1,85 for VQ > 586x920

### ADVANTAGES



\* Only available on VQ LW

Flameless **curved**: **VIGIFLAM VQ-R®**



**APPLICATIONS**

The VIGIFLAM VQ curved is a rectangular flameless device connected with a standard bursting panel VIGIFLAM VL R.

This curved flameless device can be installed directly on cylindrical vessels.

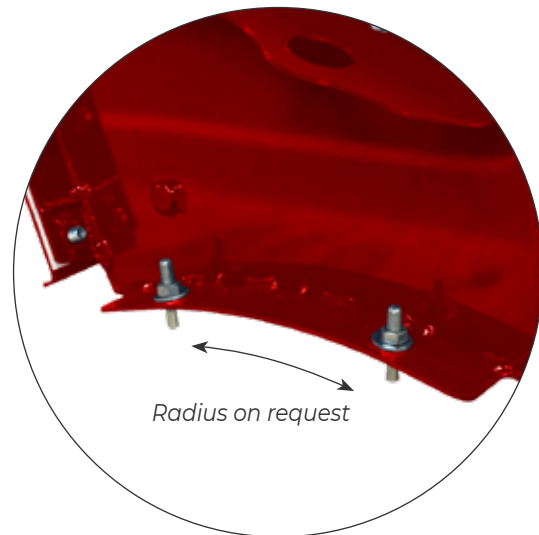
Thereby avoiding the possibility of a material accumulation in front of the explosion panel.

**STANDARD CHARACTERISTICS**

- VL-R Vent panel with EPDM gasket included
- Mild steel body + coating
- Stainless steel mesh
- Burst sensor VIGILEX INR included
- Sizes page 15
- Radius on request

**OPTION**

- Silicon gasket



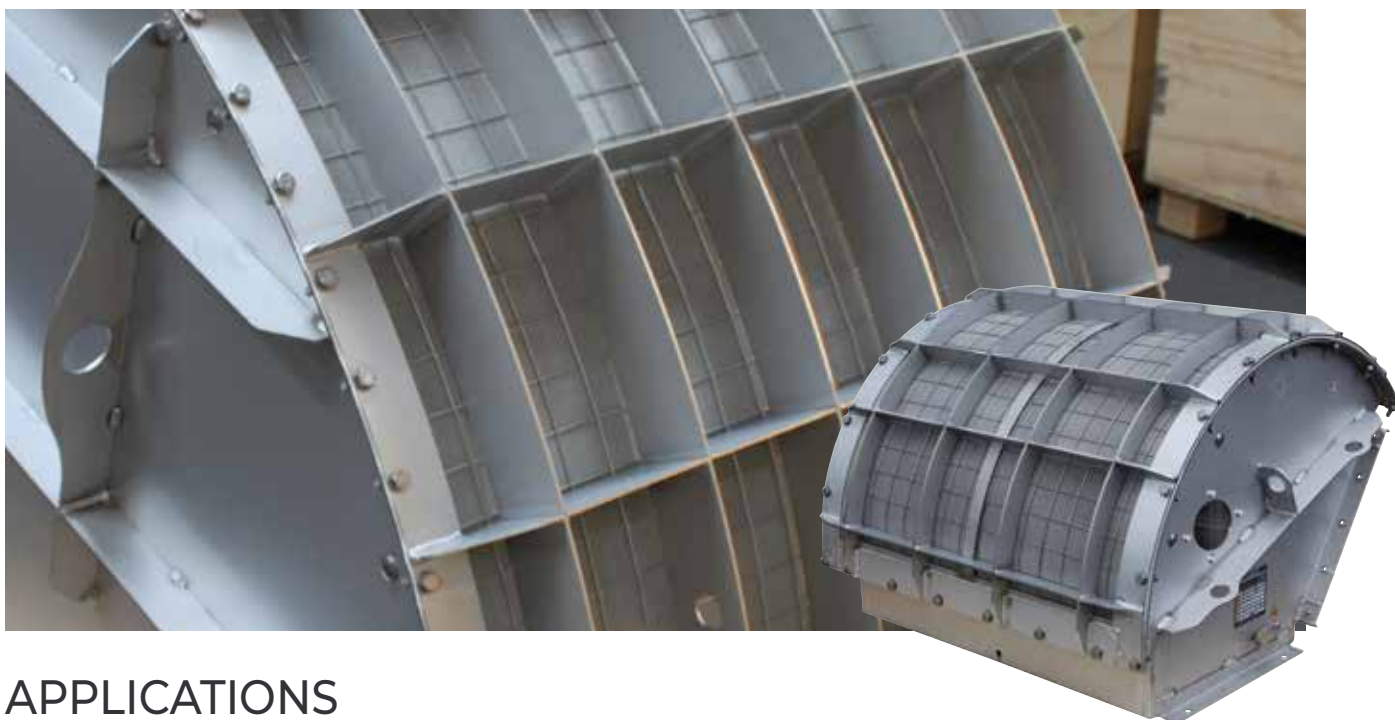
*ACCESSORIES for VIGIFLAM VQ curved*

- Sanitary Cover





## Flameless **stainless steel**: **VIGIFLAM VQ-SST®**



### APPLICATIONS

The **VIGIFLAM VQ** stainless steel is a rectangular flameless device connected with a standard **VIGILEX** bursting panel. It is a perfect option for food or pharmaceutical facilities or installed in a moist atmosphere.

**VIGIFLAM VQ** stainless steel provides effective pressure resistance, eliminating the spread of flame and glowing particles.

### STANDARD CHARACTERISTICS

- VL or VD Vent panel with silicone gasket included
- Stainless steel body
- Stainless steel mesh
- Burst sensor VIGILEX INR included

### *ACCESSORIES for VIGIFLAM VQ stainless steel*

- Sanitary Cover



# WWW.VIGILEX.EU

We give you the opportunity **to access to all our documents** (drawings, certificates, data sheets, brochures,...) on our website dedicated to our explosion protection system range.

Watch our videos



Download our certificates & questionnaires

Contact our experts



Access to our software for vent area calculation



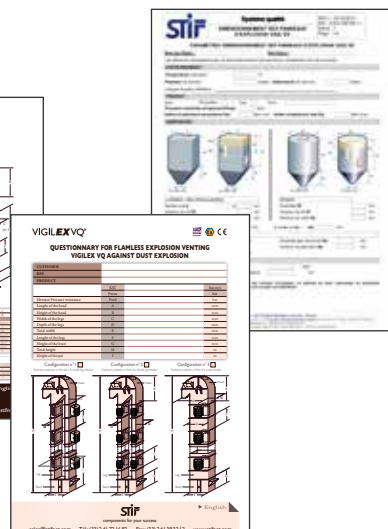
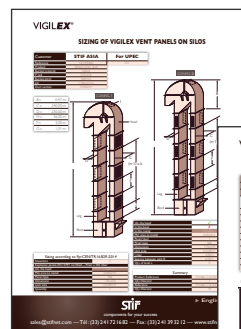
Download drawings of all our products range



Find all the accessories you need to increase the performance of your safety equipment

## QUESTIONNAIRES

By filling in the questionnaire, we can propose a solution designed to your requirements and conforming to the standards EN14991, EN14994, VDI3673 and NFPA 68.



# VIGILEX® VENT

## SOFTWARE FOR VENT AREA CALCULATION

According to the standards **EN 14491**, **EN 14994** and **VDI3673**, the vigilex vent software enables you to define the vent area needed to protect your application by yourself.

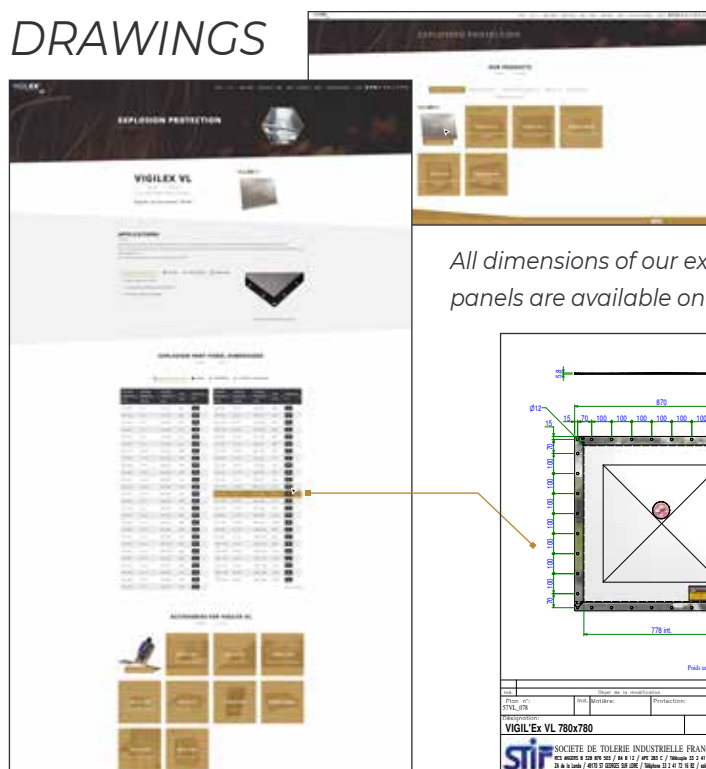
After your initial request to access on our site, you receive a code confirmation within 24 hours to have access to our vent area calculation software.

This software provide diferents vessels and machinery:

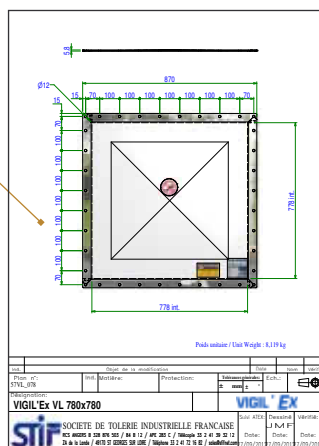
Silos, Filters, Elevators & Building.



## DRAWINGS



All dimensions of our explosion panels are available on our website



## CERTIFICATES



## VIDEOS OF TESTS

Test for vent panel and flameless



# VIGILEX®

SAFETY PROTECTION

By **stif**

[www.vigilex.eu](http://www.vigilex.eu)

## EUROPE



### **STIF (Head Office) Factory**

Z.A. de la Lande  
49170 Saint-Georges-sur-Loire  
FRANCE  
Tél.: +33 2 41 72 16 82  
Fax: +33 2 41 39 32 12  
E mail: [sales@stifnet.com](mailto:sales@stifnet.com)  
Web: [www.stifnet.com](http://www.stifnet.com)

### **STIF IBERICA Sales Office**

Carrer Doctor Zamenhof, 22. Local  
08800 Vilanova i La Geltrú  
BARCELONA - ESPAÑA  
Tel.: +34 938 950 262  
Fax: +34 938 950 298  
E mail: [ventas@stifiberica.es](mailto:ventas@stifiberica.es)  
Web: [www.stifnet.com](http://www.stifnet.com)

### **STIF EASTERN EUROPE Sales Office**

Saltovskoe Hwy., 43,  
Letter G-3, office 303  
61038 KHARKOV  
UKRAINE  
Ph.: +38 057 728 0840  
E mail: [stifee@stifnet.com](mailto:stifee@stifnet.com)  
Web: [www.stifnet.com](http://www.stifnet.com)

### **STIF DEVELOPMENT Ltd Sales Office**

Station House  
6 Newton Road  
Strathaven  
ML10 6BQ  
UNITED KINGDOM  
E mail: [info@macclancyandsons.co.uk](mailto:info@macclancyandsons.co.uk)  
Web: [www.vigilexuk.com](http://www.vigilexuk.com)



## ASIA

### **STIF (SUZHOU) Factory**

Unit 7, N°2318  
East Taihu Lake Road  
Wuzhong District, Suzhou City  
Jiangsu Province, CHINA  
Ph.: +86 512 6656 8968  
Fax: +86 512 6656 9128  
E mail: [sales@stif.cn](mailto:sales@stif.cn)  
Web: [www.stif.cn](http://www.stif.cn)

### **STIF ASIA Sales Office**

2 Jurong East St 21  
# 04-28K IMM Building  
SINGAPORE 609601  
Ph.: +65 6563-2098  
Fax: +65 6562-6083  
E mail: [sales@stif.com.sg](mailto:sales@stif.com.sg)  
Web: [www.stifnet.com](http://www.stifnet.com)

### **PT. STIF INDONESIA Sales Office**

Jl. Ratna no. 1A  
BEKASI - 17412  
INDONESIA  
Ph.: +62 21 8499 6745  
Fax: +62 21 8499 5151  
E mail: [indo@stif.com.sg](mailto:indo@stif.com.sg)  
Web: [www.stifnet.com](http://www.stifnet.com)

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