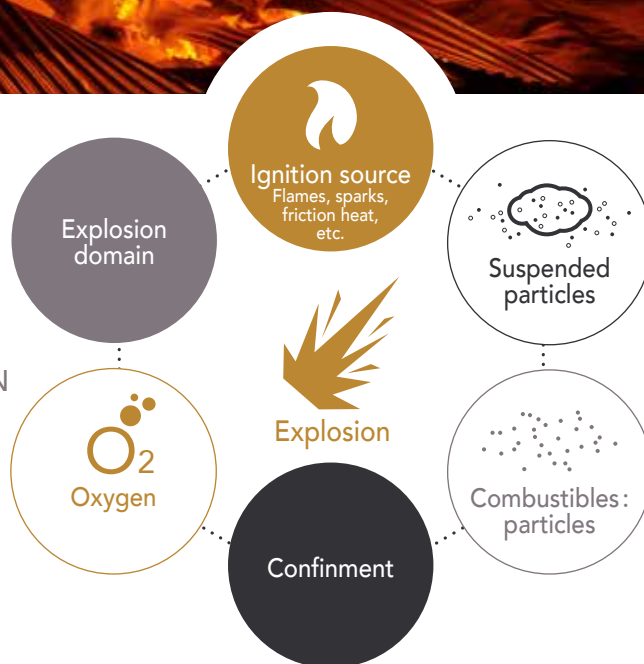


EXPLOSION PROTECTION





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 10000m² production facility and global headquarters is based in the west of France near ANGERS, 80km 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 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 1127.1-2011
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 EN 14491, EN 14994, 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 14797. 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
- EN 14491 / EN 14994 / EN 14797 / EN 1127.1
- 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:

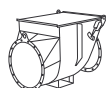
■ Organic dust

■ Fiber dust

■ Metal dust

■ Gas

SUMMARY



Explosion Isolation Valve

VIGIFLAP

Explosion Isolation Valve

NEW

8



Flameless Devices

VIGILEX VQ

Flameless venting

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VIGILEX VQ R

Curved flameless venting

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VIGILEX VQ

Metal dust flameless venting

NEW

13



Explosion Vent Panel

VIGILEX VL

Single flat

14

VIGILEX VL-R

Single curved

16

VIGILEX VL-S

Single flat simple

18

VIGILEX VL-SANITARY

Hygienic applications

20

VIGILEX VD

Single domed

22

VIGILEX VD-HV

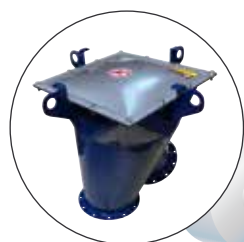
Single domed high vacuum resistant

24



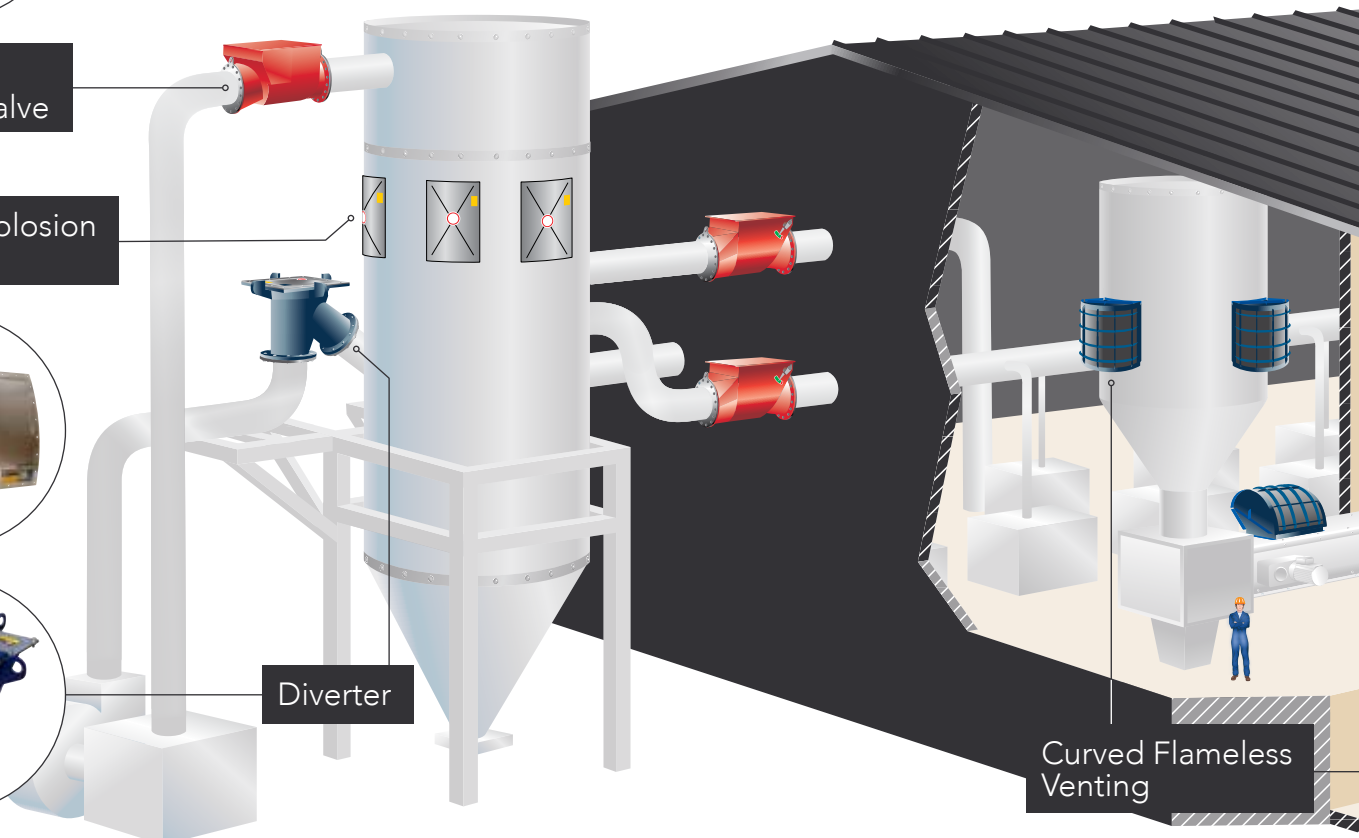
Explosion Isolation Valve

Curved Explosion Vent Panel



Diverter

OUR DEVICES





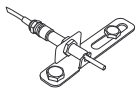
Diverter

V-DEX

Diverter

NEW

26



Accessories

BURST SENSOR

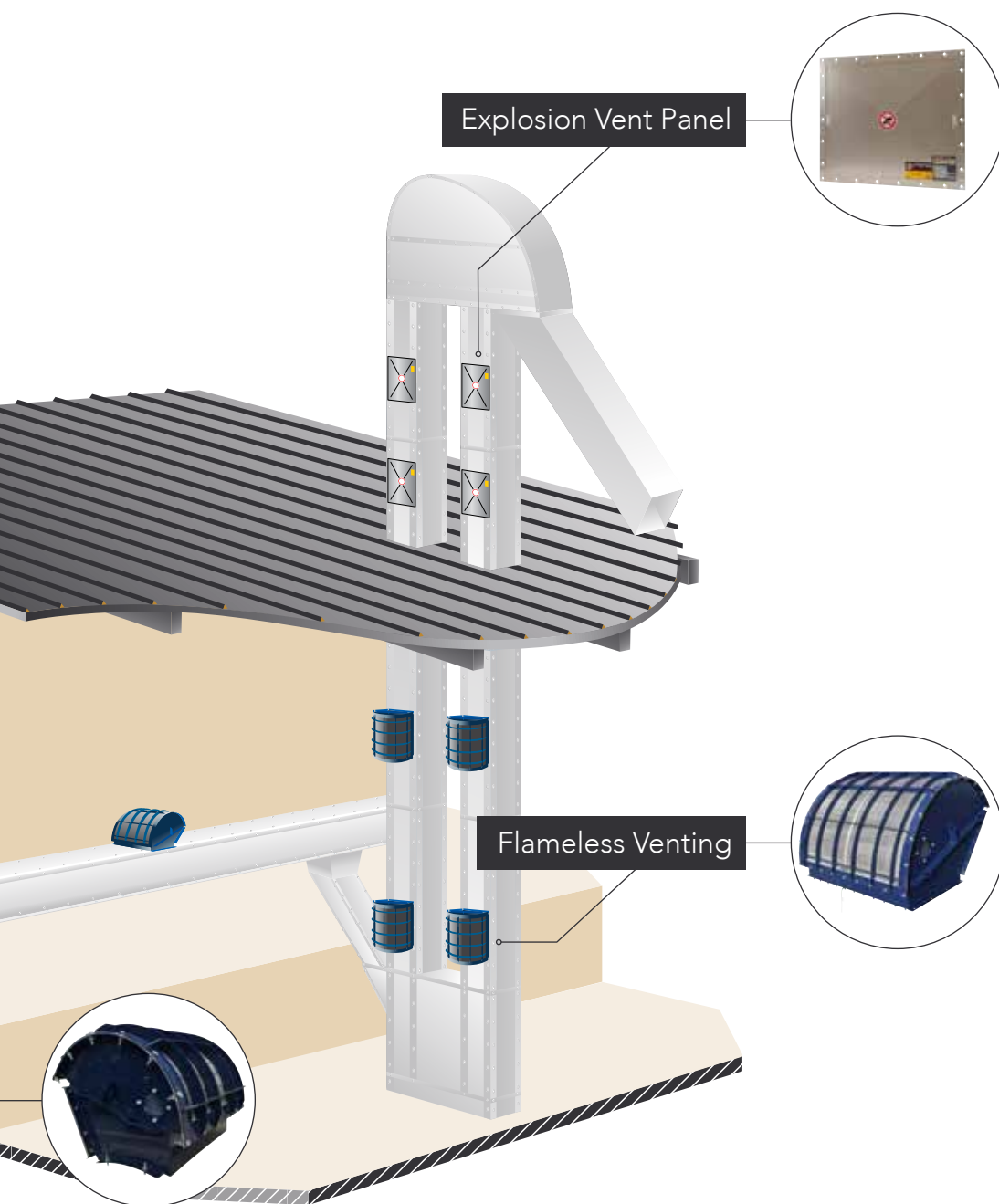
28

OPTIONS

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www.vigilex.eu

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VIGIFLAP® EXPLOSION ISOLATION VALVE

APPLICATIONS

The VigiFLAP is a non-return valve designed to prevent overpressure or flame caused by a downstream explosion (dust collectors, filters, cyclones...) to propagate in the piping system.

The valve is held open by a lever arm. It can be used both at the entrance and at the exit of the filter. This allows to isolate the filter of an explosion or an overpressure.

In case of explosion, the valve closes and remains locked preventing the passage of the flame. The unlocking of the flap is done manually.

STANDARD CHARACTERISTICS

- Body: Painted steel
- Flap: Round domed flap: Full stainless steel
- Diameter: ø160mm to ø1300mm
- Frame EPDM Gasket: 80°C
- Flanges: ISO and ANSI flanges design
- Inductive Sensor: Closing indication sensors in case of explosion or overpressure

CERTIFICATIONS

INERIS 19 ATEX 0016X

EN 16447

EN 15089

NFPA 69



OPTIONS for VigiFLAP

- Body: Galvanized steel
- Body: Stainless steel
- Frame silicon FDA: 200°C
- Accumulated dust level:
Burst sensor to prevent dust accumulation
- Connection box installed on the body, according to the ATEX zone (opposite side of the locking mechanism)



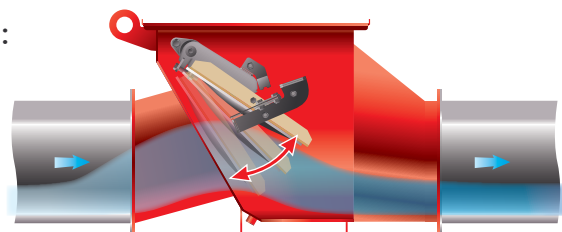
Technical information: VIGIFLAP[®]

FLAP POSITIONS

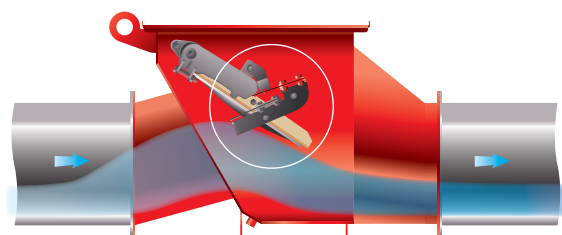
FLOW PROCESS

2 FLAP position during flow process:

Flap stay open by process flow.

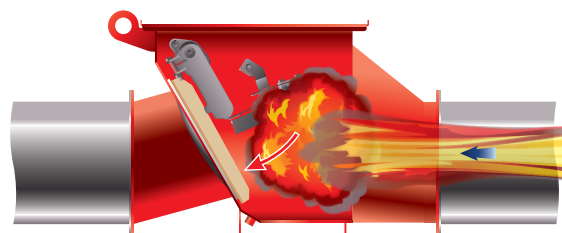


Flap is locked open.



EXPLOSION EVENT

Flap is closed by explosion and stay locked manual unlocking.



Non dust accumulation design

CAN ALSO BE USED
ON CLEAN AIR OUTLET

TECHNICAL INFORMATION

KST MAX	St3 $\leq 300 \text{ bar.m/s}$	DUST	Organic Dust Metallic Dust	POSITION OF THE DEVICE	Horizontal or Vertical
KST MIN	$\geq 50 \text{ bar.m/s}$	AMBIENT TEMPERATURE	$-20^{\circ}\text{C} \dots +60^{\circ}\text{C}$	FLUX	Push Flow or Pull Flow
P MAX	$\leq 10 \text{ bar}$	SPEED FLOW	$15 \text{ m/s} \dots 35 \text{ m/s}$	FLOW TEMPERATURE	$\leq 80^{\circ}\text{C}$
MESG	1,5 mm (ex: sulfur)	DUST CONCENTRATION	No limit	INTERIOR	ATEX zone 20



VIGILEXVQ® APPLICATIONS

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

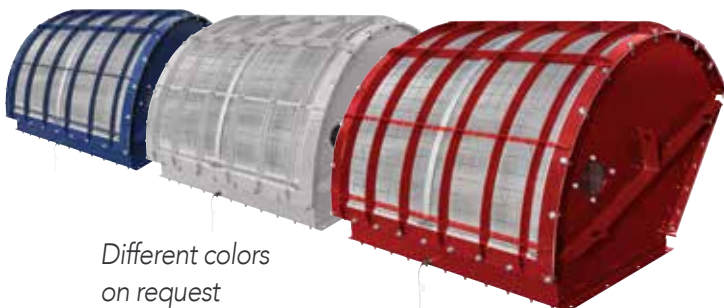
It can be used with great effect indoors and outdoors and is a fast and easy solution instead of cumbersome and expensive solutions with pipe installations to the open air.

VIGILEX 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 arrestor 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
- **Metal dust**
- **Gas**

NEW

ACCESSORIES for VIGILEX VQ

- Sanitary Cover



- Body made of stainless steel
(See page 13)

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

FLAMELESS

VIGILEX VQ SPECIFICATIONS

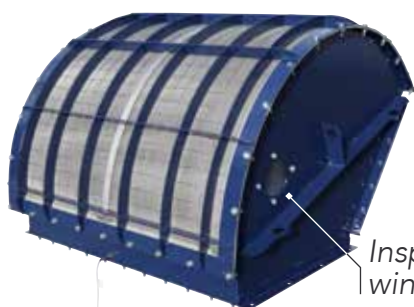
VIGILEX VQ		IN COMBINATION WITH VENT PANEL				BOLT SPECS	
MODEL		Nominal Size (mm/inch)		Nominal Square (m²/ft²)		Qty	Size
VIGILEX VQ	170x470	170 x 470 mm	7 x 19 in	0,0785 m²	0,845 sqft	20	M10x30
VIGILEX VQ	270x458	270 x 458 mm	11 x 18 in	0,1220 m²	1,315 sqft	22	M10x30
VIGILEX VQ	300x500	300 x 500 mm	12 x 20 in	0,1480 m²	1,595 sqft	24	M10x30
VIGILEX VQ	305x610	305 x 610 mm	12 x 24 in	0,1840 m²	1,980 sqft	26	M10x30
VIGILEX VQ	350x650	350 x 650 mm	14 x 26 in	0,2250 m²	2,425 sqft	26	M10x30
VIGILEX VQ	490x590	490 x 590 mm	19 x 23 in	0,2865 m²	3,084 sqft	32	M10x30
VIGILEX VQ	610x610	610 x 610 mm	24 x 24 in	0,3695 m²	3,975 sqft	32	M10x30
VIGILEX VQ	457x890	457 x 890 mm	18 x 35 in	0,4040 m²	4,349 sqft	34	M10x30 NEW
VIGILEX VQ	586x920	586 x 920 mm	23 x 36 in	0,5360 m²	5,770 sqft	42	M10x30
VIGILEX VQ	645x1130	645 x 1130 mm	25 x 44 in	0,7250 m²	7,804 sqft	34	M10x30 NEW
VIGILEX VQ	920x920	920 x 920 mm	36 x 36 in	0,8425 m²	9,068 sqft	50	M10x30 NEW
VIGILEX VQ	1130x1130	1130 x 1130 mm	44 x 44 in	1,2720 m²	13,696 sqft	58	M10x30 NEW

TECHNICAL INFORMATION

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

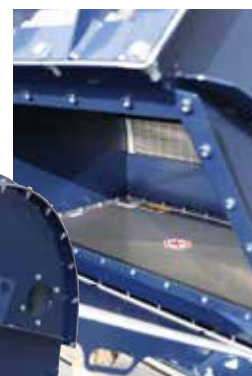
*Pred < 1,85 for VQ 920x920 and 1130x1130

ADVANTAGES



Inspection*

Access door



* Only available on VQ LW

Flameless **curved**: **VIGILEXVQ R®**



APPLICATIONS

The VIGILEX VQ R is a curved rectangular flameless device connected with a standard bursting panel VIGILEX 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 VIGILEC INR included
- Sizes page 21
- Radius on request

OPTION

- Silicon gasket



ACCESSORIES for VIGILEX VQ R

- Sanitary Cover



- Body made of stainless steel
(See page 13)

NEW

Metal dust approved EN 16009:

The VIGILEX VQ is certified to protect all facilities, equipment and machinery which process combustible metals.

It is the perfect safety device to avoid a catastrophic failure caused by a metal dust explosion.

The technology of the VIGILEX VQ design ensures the maximum resistance to the high temperatures generated by a metal dust fire or explosion creating a safe working environment.



SPECIFICS FLAMELESS

Flameless **stainless steel**: VIGILEX VQ SST®



APPLICATIONS

The VIGILEX VQ SST 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 an moist atmosphere. VIGILEX VQ SST provides effective low 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 VIGILEC INR included

ACCESSORIES for VIGILEX VQ SST

- Sanitary Cover





VIGILEX^{VL} VACUUM RESISTANCE : 50 mbar

APPLICATIONS

The VIGILEX VL is suitable for all applications with low vacuum or working pressure (up to 50% of static burst pressure) such as elevators, conveyors, silos, cyclones.

With an integral flange ready to install, covering the breaking point, the VIGILEX VL ensures a strong mechanical durability. The attached wide gasket provides the VIGILEX VL a perfect dustproof seal.

The standard burst pressure is 0,1 bar (max. 0,5 bar) at 22° C (72° F).

STANDARD CHARACTERISTICS

- Design : single flat sst 304 L
- Fully frame black EPDM gasket (-40°+80°C)
- Integrated stainless steel flange



**Fully frame
black EPDM gasket (-40°+80°C)**

OPTIONS

- Panel material stainless steel 316L
- Fully frame white silicon FDA gasket (-60°+200°C)
- High temperature graphite gasket (-200°+500°C)
- Integrated stainless steel 316L flange

CERTIFICATIONS

Ex II GD

EN 14491

EN 14994

EN 14797

EN 1127.1

EU Certificate: INERIS 15ATEX0001X

Production quality assurance notification :
INERIS 08ATEXQ406



ACCESSORIES for VIGILEX VL (See page 24)

- Burst Sensor
- Weather protection vigilex WI
- Vacuum safety grid
- Thermal insulation vigilex TI
- Duct discharge

Explosion vent panel **dimensions:** **VIGILEX VL®**

RECTANGULAR & SQUARE

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
110 x 290	4 x 11	174 x 354	290
150 x 600	6 x 24	230 x 680	885
170 x 470	7 x 19	250 x 550	785
220 x 420	9 x 17	300 x 500	910
229 x 229	9 x 9	310 x 310	515
229 x 305	9 x 12	310 x 386	690
247 x 610	10 x 24	327 x 690	1485
270 x 458	11 x 18	350 x 538	1220
300 x 500	12 x 20	380 x 580	1480
300 x 600	12 x 24	366 x 666	1605
305 x 457	12 x 18	386 x 538	1385
305 x 610	12 x 24	386 x 690	1845
319 x 765	12 x 30	405 x 850	2480
340 x 385	13 x 15	404 x 449	1250
340 x 440	13 x 17	404 x 504	1430
350 x 650	14 x 26	430 x 730	2255
375 x 655	15 x 25	460 x 740	2445
390 x 620	15 x 24	470 x 700	2395
410 x 410	16 x 16	480 x 480	1660
420 x 520	16 x 20	500 x 600	2165
420 x 920	16 x 36	500 x 1000	3835
457 x 890	20 x 28	537 x 970	4040
470 x 610	18 x 24	550 x 690	2845
480 x 680	19 x 27	580 x 780	3260
490 x 490	19 x 19	570 x 570	2380
490 x 590	19 x 23	570 x 670	2865

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
520 x 520	20 x 20	600 x 600	2680
520 x 620	20 x 24	600 x 700	3200
520 x 1020	20 x 40	600 x 1000	5270
580 x 1180	23 x 46	670 x 1270	6805
586 x 920	23 x 36	666 x 1000	5360
610 x 610	24 x 24	690 x 690	3695
610 x 1118	24 x 44	690 x 1198	6785
645 x 645	25 x 25	740 x 740	4130
645 x 1130	25 x 44	735 x 1220	7250
653 x 653	26 x 26	740 x 740	4260
680 x 680	27 x 27	780 x 780	4595
720 x 1020	28 x 40	800 x 1100	7300
780 x 780	30 x 31	880 x 880	6080
780 x 1180	30 x 46	880 x 1280	9160
800 x 1000	31 x 40	890 x 1090	7960
880 x 880	35 x 35	980 x 980	7700
915 x 1118	36 x 44	996 x 1198	10200
920 x 920	36 x 36	1000 x 1000	8425
980 x 980	39 x 39	1080 x 1080	9600
1000 x 1000	40 x 40	1056 x 1056	9680
1020 x 1020	40 x 40	1100 x 1100	10360
1080 x 1080	42 x 42	1180 x 1180	11600
1130 x 1130	44 x 44	1220 x 1220	12720
1180 x 1180	46 x 46	1280 x 1280	13875
1000 x 2000	40 x 79	1080 x 2080	19940

Other sizes available

ROUND

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
Ø 200	8	Ø 268	310
Ø 250	10	Ø 341	480
Ø 300	12	Ø 390	695
Ø 350	14	Ø 424	930
Ø 400	16	Ø 473	1230
Ø 450	18	Ø 545	1580
Ø 500	20	Ø 574	1935

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
Ø 600	24	Ø 676	2790
Ø 700	28	Ø 790	3830
Ø 750	30	Ø 842	4400
Ø 800	31	Ø 880	5000
Ø 900	36	Ø 980	6280
Ø 980	39	Ø 1070	7510

Other sizes available

TRAPEZOIDAL (On request)

TECHNICAL INFORMATION

STIF MODEL	DESIGN	Pstat@22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VL	Single flat Integrated frame	0,1 to 0,5 bar (±15%)	80 % - 100 %	50 mbar	500 bar.m/s

VIGILEX VL-R® VACUUM RESISTANCE: 50 mbar

APPLICATIONS

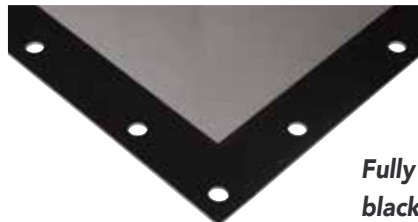
The VIGILEX VL-R is a curved explosion vent panel shaped according to a customer specification need. VIGILEX VL-R is suitable for all applications with low vacuum or working pressure (up to 50 % of static burst pressure) such as elevators, conveyors, silos, cyclones.

With an integral flange ready to install, covering the breaking point, the VIGILEX VL-R ensures a strong mechanical durability. The attached wide gasket provides the VIGILEX VL-R a perfect dustproof seal. The standard burst pressure is 0.1 bar (max. 0.5 bar) at 22°C (72°F).

The VIGILEX VL-R is tested after it has been formed, to ensure that the correct burst pressure is observed.

STANDARD CHARACTERISTICS

- Design: single curved sst 304 L
- Fully frame black EPDM gasket (-40°+80°C)
- Integrated stainless steel flange
- Curved: radius on request



**Fully frame
black EPDM gasket (-40°+80°C)**

OPTIONS

- Panel material stainless steel 316L
- Fully frame white silicon FDA gasket (-60°+200°C)
- High temperature graphite gasket (-200°+500°C)
- Integrated stainless steel 316L flange

CERTIFICATIONS

Ex II GD

EN 14 491

EN 14 994

EN 14 797

EN 1127.1

EU Certificate: INERIS 15ATEX0001X

Production quality assurance notification:
INERIS 08ATEXQ406



ACCESSORIES for VIGILEX VL-R (See pages 28-29)

- Burst Sensor
- Weather protection vigilex WI
- Vacuum safety grid
- Thermal insulation vigilex TI
- Duct discharge

Explosion vent panel **dimensions:** **VIGILEX VL-R®**

RECTANGULAR & SQUARE

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
110 x 290	4 x 11	174 x 354	290
150 x 600	6 x 24	230 x 680	885
170 x 470	7 x 19	250 x 550	785
220 x 420	9 x 17	300 x 500	910
229 x 229	9 x 9	310 x 310	515
229 x 305	9 x 12	310 x 386	690
247 x 610	10 x 24	327 x 690	1485
270 x 458	11 x 18	350 x 538	1220
300 x 500	12 x 20	380 x 580	1480
300 x 600	12 x 24	366 x 666	1605
305 x 457	12 x 18	386 x 538	1385
305 x 610	12 x 24	386 x 690	1845
319 x 765	12 x 30	405 x 850	2480
340 x 385	13 x 15	404 x 449	1250
340 x 440	13 x 17	404 x 504	1430
350 x 650	14 x 26	430 x 730	2255
375 x 655	15 x 25	460 x 740	2445
390 x 620	15 x 24	470 x 700	2395
410 x 410	16 x 16	480 x 480	1660
420 x 520	16 x 20	500 x 600	2165
420 x 920	16 x 36	500 x 1000	3835
457 x 890	20 x 28	537 x 970	4040
470 x 610	18 x 24	550 x 690	2845
480 x 680	19 x 27	580 x 780	3260
490 x 490	19 x 19	570 x 570	2380
490 x 590	19 x 23	570 x 670	2865

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
520 x 520	20 x 20	600 x 600	2680
520 x 620	20 x 24	600 x 700	3200
520 x 1020	20 x 40	600 x 1000	5270
580 x 1180	23 x 46	670 x 1270	6805
586 x 920	23 x 36	666 x 1000	5360
610 x 610	24 x 24	690 x 690	3695
610 x 1118	24 x 44	690 x 1198	6785
645 x 645	25 x 25	740 x 740	4130
645 x 1130	25 x 44	735 x 1220	7250
653 x 653	26 x 26	740 x 740	4260
680 x 680	27 x 27	780 x 780	4595
720 x 1020	28 x 40	800 x 1100	7300
780 x 780	30 x 31	880 x 880	6080
780 x 1180	30 x 46	880 x 1280	9160
800 x 1000	31 x 40	890 x 1090	7960
880 x 880	35 x 35	980 x 980	7700
915 x 1118	36 x 44	996 x 1198	10200
920 x 920	36 x 36	1000 x 1000	8425
980 x 980	39 x 39	1080 x 1080	9600
1000 x 1000	40 x 40	1056 x 1056	9680
1020 x 1020	40 x 40	1100 x 1100	10360
1080 x 1080	42 x 42	1180 x 1180	11600
1130 x 1130	44 x 44	1220 x 1220	12720
1180 x 1180	46 x 46	1280 x 1280	13875
1000 x 2000	40 x 79	1080 x 2080	19940

Other sizes available

TECHNICAL INFORMATION

STIF MODEL	DESIGN	Pstat@22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VL-R	Single flat Integrated frame	0,1 to 0,2 bar (±25%) 0,2 to 0,5 bar (±20%)	80 % - 100 %	50 mbar	500 bar.m/s



VIGILEX VL-S® VACUUM RESISTANCE : mbar 50 mbar

APPLICATIONS

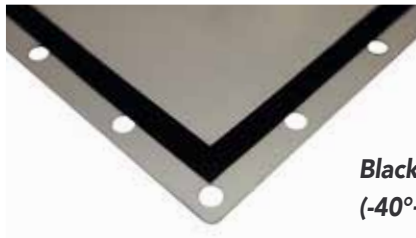
The VIGILEX VL-S is a low cost model suitable for all applications with low vacuum or working pressure (up to 50 % of static burst pressure) such as elevators, conveyors, silos, cyclones.

It is provided without flange and with a gasket covering the breaking points.

The standard burst pressure is 0.1 bar (max. 0.5 bar) at 22 °C (72 °F).

STANDARD CHARACTERISTICS

- Design : single flat sst 304 L
- Black EPDM gasket (-40°+80°C)



Black EPDM gasket
(-40°+80°C)

OPTIONS

- Panel material stainless steel 316L
- Silicon FDA gasket (-60°+200°C)
- High temperature CARBON gasket (-200°+500°C)

CERTIFICATIONS

Ex II GD

EN 14 491

EN 14 994

EN 14 797

EN 1127.1

EU Certificate: INERIS 15ATEX0001X

Production quality assurance notification :
INERIS 08ATEXQ406



ACCESSORIES for VIGILEX VL-S (See pages 28-29)

- Burst Sensor
- Thermal insulation vigilex TI
- Weather protection vigilex WI
- Duct discharge
- Vacuum safety grid

Explosion vent panel dimensions: VIGILEX VL-S®

RECTANGULAR & SQUARE

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
110 x 290	4 x 11	174 x 354	290
150 x 600	6 x 24	230 x 680	885
170 x 470	7 x 19	250 x 550	785
220 x 420	9 x 17	300 x 500	910
229 x 229	9 x 9	310 x 310	515
229 x 305	9 x 12	310 x 386	690
247 x 610	10 x 24	327 x 690	1485
270 x 458	11 x 18	350 x 538	1220
300 x 500	12 x 20	380 x 580	1480
300 x 600	12 x 24	366 x 666	1605
305 x 457	12 x 18	386 x 538	1385
305 x 610	12 x 24	386 x 690	1845
319 x 765	12 x 30	405 x 850	2480
340 x 385	13 x 15	404 x 449	1250
340 x 440	13 x 17	404 x 504	1430
350 x 650	14 x 26	430 x 730	2255
375 x 655	15 x 25	460 x 740	2445
390 x 620	15 x 24	470 x 700	2395
410 x 410	16 x 16	480 x 480	1660
420 x 520	16 x 20	500 x 600	2165
420 x 920	16 x 36	500 x 1000	3835
457 x 890	20 x 28	537 x 970	4040
470 x 610	18 x 24	550 x 690	2845
480 x 680	19 x 27	580 x 780	3260
490 x 490	19 x 19	570 x 570	2380
490 x 590	19 x 23	570 x 670	2865

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
520 x 520	20 x 20	600 x 600	2680
520 x 620	20 x 24	600 x 700	3200
520 x 1020	20 x 40	600 x 1000	5270
580 x 1180	23 x 46	670 x 1270	6805
586 x 920	23 x 36	666 x 1000	5360
610 x 610	24 x 24	690 x 690	3695
610 x 1118	24 x 44	690 x 1198	6785
645 x 645	25 x 25	740 x 740	4130
645 x 1130	25 x 44	735 x 1220	7250
653 x 653	26 x 26	740 x 740	4260
680 x 680	27 x 27	780 x 780	4595
720 x 1020	28 x 40	800 x 1100	7300
780 x 780	30 x 31	880 x 880	6080
780 x 1180	30 x 46	880 x 1280	9160
800 x 1000	31 x 40	890 x 1090	7960
880 x 880	35 x 35	980 x 980	7700
915 x 1118	36 x 44	996 x 1198	10200
920 x 920	36 x 36	1000 x 1000	8425
980 x 980	39 x 39	1080 x 1080	9600
1000 x 1000	40 x 40	1056 x 1056	9680
1020 x 1020	40 x 40	1100 x 1100	10360
1080 x 1080	42 x 42	1180 x 1180	11600
1130 x 1130	44 x 44	1220 x 1220	12720
1180 x 1180	46 x 46	1280 x 1280	13875
1000 x 2000	40 x 79	1080 x 2080	19940

Other sizes available

ROUND

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
Ø 200	8	Ø 268	310
Ø 250	10	Ø 341	480
Ø 300	12	Ø 390	695
Ø 350	14	Ø 424	930
Ø 400	16	Ø 473	1230
Ø 450	18	Ø 545	1580
Ø 500	20	Ø 574	1935

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
Ø 600	24	Ø 676	2790
Ø 700	28	Ø 790	3830
Ø 750	30	Ø 842	4400
Ø 800	31	Ø 880	5000
Ø 900	36	Ø 980	6280
Ø 980	39	Ø 1070	7510

Other sizes available

TECHNICAL INFORMATION

STIF MODEL	DESIGN	Pstat@22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VL-S	Single flat Integrated frame	0,1 to 0,5 bar (±15%)	80 % - 100 %	50 mbar	500 bar.m/s



VIGILEX VL-SANITARY® VACUUM RESISTANCE : 50 mbar

APPLICATIONS

The new VIGILEX VL-SANITARY is designed especially for hygienic applications in food or pharmaceutical industry. Dedicated to protect systems with low vacuum or working pressure (up to 50 % of static burst pressure) such as spray dryers. This panel is equipped with a patented gasket. The high technology designed of this panel avoids contaminations.

The standard burst pressure is 0.1 bar (max. 0.5 bar) at 22 °C (72 °F).

STANDARD CHARACTERISTICS

- Design : Single flat sst 316 L
- Blue FKM FDA gasket (-10°+250°C)
- Integrated stainless steel 304L flange
- Clean design
- Bacteriological barrier

CERTIFICATIONS

Ex II GD

EN 14491

EN 14994

EN 14797

EN 1127.1

EU Certificate: INERIS 15ATEX0001X

Production quality assurance notification :
INERIS 08ATEXQ406



ACCESSORIES for VIGILEX VL-SANITARY (See pages 28-29)

- Burst Sensor
- Weather protection vigilex WI
- Duct discharge

Explosion vent panel **dimensions:** **VIGILEX VL-SANITARY®**

RECTANGULAR & SQUARE

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
610 x 610	24 x 24	690 x 690	3695
586 x 920	23 x 36	666 x 1000	5360
782 x 882	31 x 35	990 x 890	6790
920 x 920	36 x 36	1000 x 1000	8425
1020 x 1020	40 x 40	1100 x 1100	10360

TECHNICAL INFORMATION

STIF MODEL	DESIGN	Pstat@22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VL-SANITARY	Single flat Integrated frame	0,1 to 0,5 bar (±15%)	80 % - 100 %	50 mbar	500 bar.m/s

MAKE YOUR
HYGIENIC PROCESS SAFE





VIGILEXVD® VACUUM RESISTANCE: mbar 200 mbar

APPLICATIONS

The VIGILEX VD is a domed panel, designed to protect plants with a vacuum and pulsating processes. The domed design is optimal for pneumatic operated vessels like filters and cyclones with strong vibration.

With an integral flange ready to install and gasket included, the VIGILEX VD meet all your safety issues with the most demand in your application. The attached wide gasket provides the VIGILEX VD a perfect dustproof. The standard burst pressure is 0.1 bar (max. 0.5 bar) at 22°C (72°F).

STANDARD CHARACTERISTICS

- Design: single domed sst 304 L
- Fully frame black EPDM gasket (-40°+80°C)
- Integrated stainless steel flange



**Fully frame
black EPDM gasket (-40°+80°C)**

OPTIONS

- Panel material stainless steel 316L
- Fully frame white silicon FDA gasket (-60°+200°C)
- High temperature graphite gasket (-200°+500°C)
- Integrated stainless steel 316L flange

CERTIFICATIONS

Ex II GD

EN 14 491

EN 14 994

EN 14 797

EN 1127.1

EU Certificate: INERIS 15ATEX0001X

Production quality assurance notification:
INERIS 08ATEXQ406



ACCESSORIES for VIGILEX VD (See pages 28-29)

- Burst Sensor
- Weather protection vigilex WI
- Vacuum safety grid
- Thermal insulation vigilex TI
- Duct discharge

Explosion vent panel **dimensions:** VIGILEX VD®

RECTANGULAR & SQUARE

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
150 x 600	6 x 24	230 x 680	885
170 x 470	6 x 19	250 x 550	785
205 x 290	8 x 11	285 x 370	580
220 x 420	9 x 17	300 x 500	910
229 x 229	9 x 9	310 x 310	515
229 x 305	9 x 12	310 x 386	690
247 x 610	10 x 24	327 x 690	1485
270 x 458	11 x 18	350 x 538	1220
300 x 500	12 x 20	380 x 580	1480
305 x 457	12 x 18	386 x 538	1385
305 x 610	12 x 24	386 x 690	1845
340 x 385	13 x 15	404 x 449	1250
340 x 440	13 x 17	404 x 504	1430
350 x 650	14 x 26	430 x 730	2255
375 x 655	15 x 26	460 x 740	2445
410 x 410	16 x 16	480 x 480	1660

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
457 x 890	20 x 28	537 x 970	4040
470 x 610	18 x 24	550 x 690	2845
490 x 490	19 x 19	570 x 570	2380
490 x 590	19 x 23	570 x 670	2865
525 x 668	21 x 26	630 x 765	3400
586 x 920	23 x 36	666 x 1000	5360
610 x 610	24 x 24	690 x 690	3695
610 x 1118	24 x 44	690 x 1198	6785
645 x 645	25 x 25	735 x 735	4130
645 x 1130	25 x 44	735 x 1220	7250
653 x 653	26 x 26	740 x 740	4260
915 x 1118	36 x 44	996 x 1198	10200
920 x 920	36 x 36	1000 x 1000	8425
920 x 1380	36 x 54	1000 x 1460	12420
980 x 980	39 x 39	1080 x 1080	9600
1020 x 1020	40 x 40	1100 x 1100	10360

Other sizes available

ROUND

DIMENSIONS INTÉRIEURES		DIMENSIONS EXTÉRIEURES	SURFACE
(mm)	Inches	(mm)	(cm ²)
Ø 200	8	Ø 268	310
Ø 250	10	Ø 341	480
Ø 300	12	Ø 390	695
Ø 350	14	Ø 424	930
Ø 400	16	Ø 473	1230
Ø 450	18	Ø 545	1580
Ø 500	20	Ø 574	1935

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
Ø 600	24	Ø 676	2790
Ø 700	28	Ø 790	3830
Ø 750	30	Ø 842	4400
Ø 800	31	Ø 880	5000
Ø 900	36	Ø 980	6280
Ø 980	39	Ø 1070	7510
Ø 1200	47	Ø 1290	11766

Other sizes available

TECHNICAL INFORMATION

STIF MODEL	DESIGN	Pstat@22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VD	Single domed Integrated frame	0,1 to 0,5 bar (±15%)	80 % - 100 %	200 mbar	500 bar.m/s



VIGILEX[®]VD-HV[®] VACUUM RESISTANCE : 200 - 600 mbar

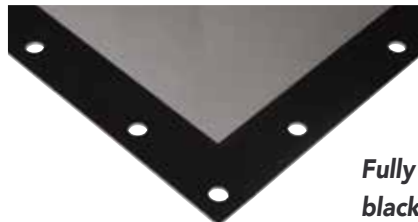
APPLICATIONS

The VIGILEX VD-HV is a strong domed panel, designed for use in applications where the operating pressure approaches the burst pressure, or where high vacuum pressure may exist. In the need for applications where the explosion vent is exposed to pulsating duty such as reverse jet cleaning systems on dust collectors with high vacuum.

With a large flange and gasket included, the one layer domed panel VIGILEX VD-HV meets all your safety issue to protect equipment and facilities. The standard burst pressure is 0.1 bar (max. 0.5 bar) at 22°C (72°F).

STANDARD CHARACTERISTICS

- Design : single domed sst 304 L
- Fully frame black EPDM gasket (-40°+80°C)
- Integrated stainless steel flange



**Fully frame
black EPDM gasket (-40°+80°C)**

OPTIONS

- Panel material stainless steel 316L
- Fully frame white silicon FDA gasket (-60°+200°C)
- High temperature graphite gasket (-200°+500°C)
- Integrated stainless steel 316L flange

CERTIFICATIONS

Ex II GD

EN 14 491
EN 14 994
EN 14 797
EN 1127.1

EU Certificate: INERIS 15ATEX0001X

Production quality assurance notification :
INERIS 08ATEXQ406



ACCESSORIES for VIGILEX VD-HV (See pages 28-29)

- Burst Sensor
- Weather protection vigilex WI
- Vacuum safety grid
- Thermal insulation vigilex TI
- Duct discharge

Explosion vent panel **dimensions:** VIGILEX VD-HV®

RECTANGULAR & SQUARE

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
150 x 600	6 x 24	230 x 680	885
170 x 470	6 x 19	250 x 550	785
205 x 290	8 x 11	285 x 370	580
220 x 420	9 x 17	300 x 500	910
229 x 229	9 x 9	310 x 310	515
229 x 305	9 x 12	310 x 386	690
247 x 610	10 x 24	327 x 690	1485
270 x 458	11 x 18	350 x 538	1220
300 x 500	12 x 20	380 x 580	1480
305 x 457	12 x 18	386 x 538	1385
305 x 610	12 x 24	386 x 690	1845
340 x 385	13 x 15	404 x 449	1250
340 x 440	13 x 17	404 x 504	1430
350 x 650	14 x 26	430 x 730	2255
375 x 655	15 x 26	460 x 740	2445
410 x 410	16 x 16	480 x 480	1660

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
457 x 890	20 x 28	537 x 970	4040
470 x 610	18 x 24	550 x 690	2845
490 x 490	19 x 19	570 x 570	2380
490 x 590	19 x 23	570 x 670	2865
525 x 668	21 x 26	630 x 765	3400
586 x 920	23 x 36	666 x 1000	5360
610 x 610	24 x 24	690 x 690	3695
610 x 1118	24 x 44	690 x 1198	6785
645 x 645	25 x 25	735 x 735	4130
645 x 1130	25 x 44	735 x 1220	7250
653 x 653	26 x 26	740 x 740	4260
915 x 1118	36 x 44	996 x 1198	10200
920 x 1380	36 x 54	1000 x 1460	12420
980 x 980	39 x 39	1080 x 1080	9600
1020 x 1020	40 x 40	1100 x 1100	10360

Other sizes available

ROUND

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
Ø 200	8	Ø 268	310
Ø 250	10	Ø 341	480
Ø 300	12	Ø 390	695
Ø 350	14	Ø 424	930
Ø 400	16	Ø 473	1230
Ø 450	18	Ø 545	1580
Ø 500	20	Ø 574	1935

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm ²)
Ø 600	24	Ø 676	2790
Ø 700	28	Ø 790	3830
Ø 750	30	Ø 842	4400
Ø 800	31	Ø 880	5000
Ø 900	36	Ø 980	6280
Ø 980	39	Ø 1070	7510

Other sizes available

TECHNICAL INFORMATION

STIF MODEL	DESIGN	Pstat@22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VD-HV	Single domed Integrated frame	0,1 to 0,5 bar (±15%)	80 % - 100 %	200 - 600 mbar	500 bar.m/s



V-DEX® DIVERTER

APPLICATIONS

The V-DEX diverter is used to deflect explosions propagating through the ducts, preventing the spread of flames or overpressures in connected vessels.

This device reduces the risk of flame spread.

STANDARD CHARACTERISTICS

- Body: Painted steel
- Explosion vent panel VL or domed explosion vent panel VD

CERTIFICATIONS

EN 14797

EN 14491



OPTIONS for V-DEX

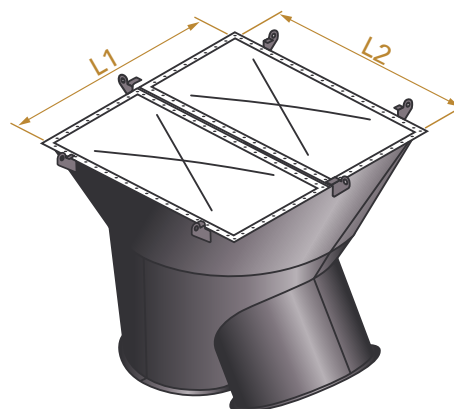
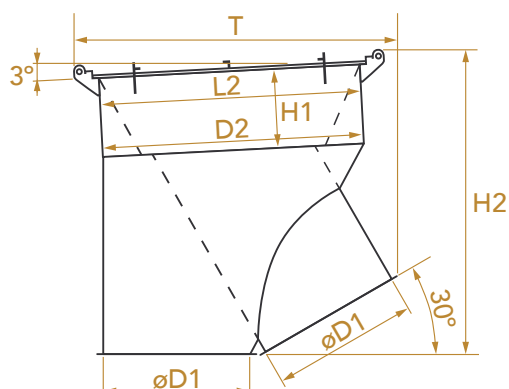
- Body: Stainless steel

Diverter dimensions: V-DEX®



CHARACTERISTICS OF THE EXPLOSION DEFLECTION DEVICE

MODEL	ø	mm	inch	H1	H2	D1	D2	L1	L2	T	Panel
Model A	ø	200	8	150	555	200	410	410	410	685	VD 410x410
	ø	250	10	175	600	250	490	490	490	781	VD 490x490
	ø	300	12	200	700	300	610	610	610	875	VD 610x610
	ø	350	14	225	800	350	645	645	645	975	VD 645x645
	ø	400	16	250	900	400	780	780	780	1070	VD 780x780
	ø	450	18	275	1000	450	850	920	920	1165	VD 920x920
	ø	500	20	300	1100	500	920	920	920	1260	VD 920x920
	ø	550	22	325	1200	550	980	980	980	1355	VD 980x980
	ø	600	24	350	1300	600	1070	1020	1020	1455	VD 1020x1020
	ø	650	26	375	1400	650	1180	1180	1180	1550	VL 1180x1180
Model B	ø	700	28	400	1500	700	1250	1375	1130	1645	VL 645x1130 (Qté 2)
	ø	750	30	425	1600	750	1350	1455	1350	1740	VL 685x1350 (Qté 2)
	ø	800	32	450	1700	800	1430	1455	1350	1835	VL 685x1350 (Qté 2)
	ø	850	34	475	1800	850	1520	1605	1520	1930	VL 760x1520 (Qté 2)
	ø	900	36	500	1900	900	1600	1605	1520	2030	VL 760x1520 (Qté 2)
	ø	950	38	525	2000	950	1700	1785	1780	2125	VL 850x1780 (Qté 2)
	ø	1000	40	550	2100	1000	1780	1785	1780	2220	VL 850x1780 (Qté 2)



TECHNICAL INFORMATION

STIF MODEL	KST MAX	Pred. Max	PMAX	DUST
V-DEX	St2 ≤ 300 bar.m/s	0,8 bar	≤ 12 bar	Any kind of dust

BURST SENSOR

APPLICATIONS

The BURST SENSOR is a very efficient element to inform when your safety devices are open. Get the signal in realtime and increase the safety of your facilities.

VIGILEX INR

Inductive proximity sensor

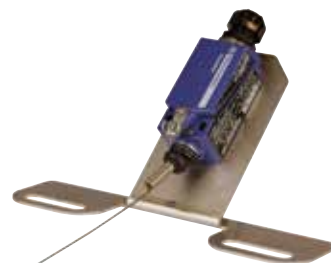
Atex Zone 21
Voltage: 12-48V DC



VIGILEX MEC

Mechanical burst sensor

Atex Zone 21
Voltage: 12-240V AC/DC



VIGILEX MAG

Magnetic burst sensor

Atex Zone 21
Voltage: 12-60V DC



VIGILEX SEC

Détecteur d'explosion sécable

Atex Zone 21
Tension: 12-24V DC



VIGILEX CAB

Breakable cable burst sensor

Voltage $\leq 1,5$ DC
Current ≤ 100 mA
Power ≤ 25 mW



M-JET LINK

Connexion box

Atex Zone 21
To connect burst sensor and control unit



OTHERS **ACCESSORIES**

VIGILEX CAP

Discharge duct

Range of duct discharge in either galanised or stainless steel.



VIGILEX WI 100 (100 mm high) **VIGILEX WI 40** (40 mm high)

Weather protection

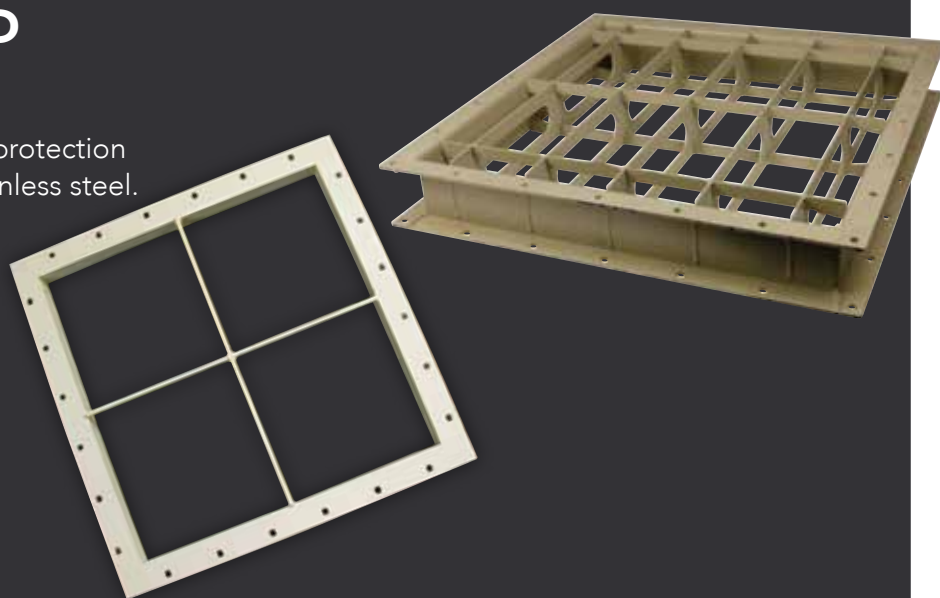
This lightweight weather cover offers protection to the explosion vent panels from the elements with the effects of wind, snow, hail and dirt minimised.



VIGILEX GS&GD

Vacuum safety grid

Range of fall and vacuum protection painted, galvanized or stainless steel.



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



Access to our software for vent area calculation



Download our certificates & questionnaires

Contact our experts



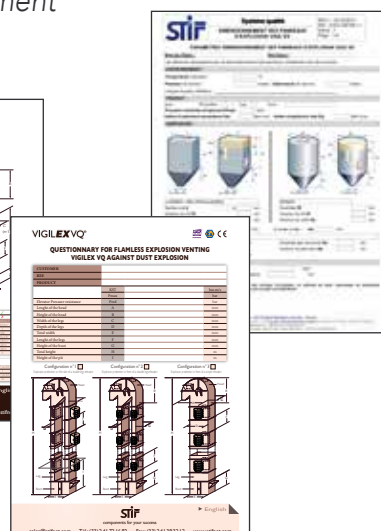
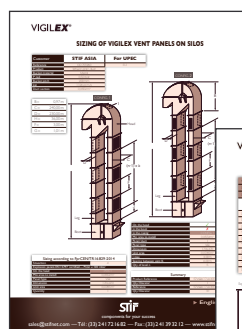
Download drawings of all our products range



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 EN 14991, EN 14994, VDI 3673 and NFPA 68.



VIGILEX® VENT

SOFTWARE FOR VENT AREA CALCULATION

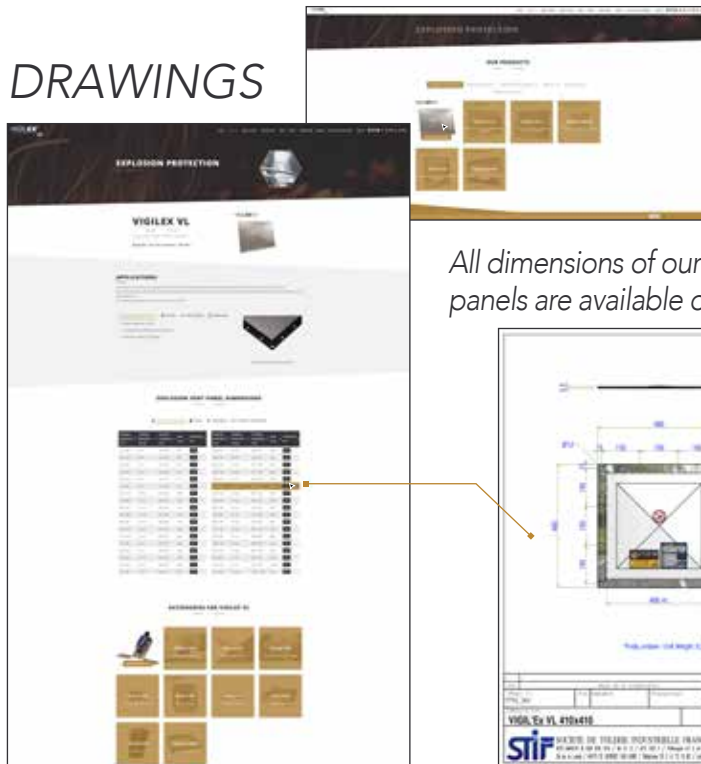
According to the standards EN 14491, EN 14994 and VDI3673, the vigilex vent software enables you to define the vent area needed to protect your application by yourself.

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



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stif

