

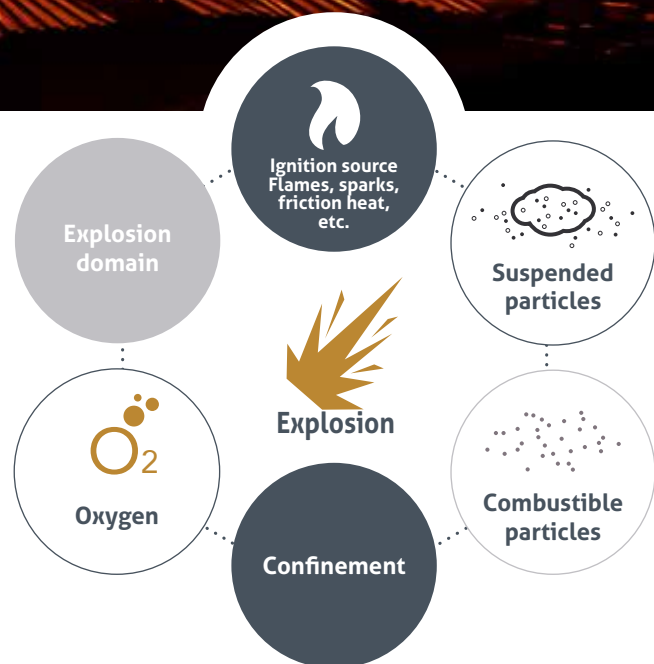
# EXPLOSION PROTECTION

# EXPLOSION PROTECTION





## THE SIX REQUIREMENTS FOR A DUST EXPLOSION



## WHAT IS EXPLOSION VENTING?

- A designed weak point in a closed system
- Limit the explosion overpressure by releasing unburned mixture and embers
- Panels do not prevent an explosion, but prevent the vessel from bursting by allowing control of maximum pressure
- Designed to open at a pre-determined pressure

## VIGILEX EXPLOSION PROTECTION DEVICES ARE DESIGNED BY S.T.I.F., WHO ARE SPECIALISTS IN MANUFACTURING COMPONENTS FOR THE BULK HANDLING INDUSTRY.

S.T.I.F. was established in 1984 and has earned a solid international reputation and now exports to more than 60 countries.

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

Following the successful launch of VIGILEX explosion vent panels, S.T.I.F. now introduces the VIGILEX VQ Flame Arrestor. This new explosion protection device is designed to protect personnel and equipment from explosions within production facilities, and furthermore to replace the generally used, but costly, ductwork solution that conveys explosions outside the building. The VIGILEX VQ is the first Flame Arrestor in the market to be approved according to the new standard EN16009 (Flameless explosion venting devices).

### 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



## THE VIGILEX EXPLOSION VENT PANELS AND FLAME ARRESTORS ARE ATEX-APPROVED PRODUCTS CERTIFIED BY THE FRENCH NOTIFIED BODY INERIS.



S.T.I.F. is the only French company to have an EU certificate for these kinds of products. STIF is also ISO 9001 certified by AFAQ.

In case of an explosion, vent panels are designed to relieve the pressure, in order to protect both the workforce and surrounding facilities. 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 can help determine the necessary vent surface area for protection of your installation. Based on the specific characteristics of your installation (KST, Predmax, Pmax, size, etc.), we can calculate the safety area adapted to your needs and conforming to the standards EN 14491, EN 14994, VDI3673 and NFPA 68.

Our experienced technical department offers a comprehensive service to guide you in optimizing your installation.



# VENT PANEL BURST TEST



STIF tests each batch of explosion vent panels before delivering conformity declarations.



## QUALITY ASSURANCE

STIF tests the vent panels in their production facility according to EN 14 797.

Panels are manufactured according to the EU type examination certificate INERIS 15ATEX0001X or 14ATEX0049X, and the quality management system of the company is certified by the EU quality certification INERIS 08ATEXQ406.

All products are supplied with a certificate of conformity including burst test results and installation guidelines.

## DIRECTIVE: 2014/34/EU



## CERTIFICATIONS

### Explosion Vent Panel Standard

- Ex II GD
- EN 14 491 / EN 14 994 / EN 14 797 / EN 1127.1
- EU type examination certificate: INERIS 15ATEX0001X
- Production quality assurance notification: INERIS 08ATEXQ406

## CERTIFICATIONS

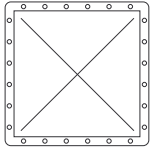
### Flameless Devices Standard

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

## CERTIFIED FOR:

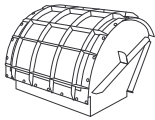
- Organic dust
- Fiber dust
- Metal dust
- Gas

# SUMMARY



## EXPLOSION VENT PANEL

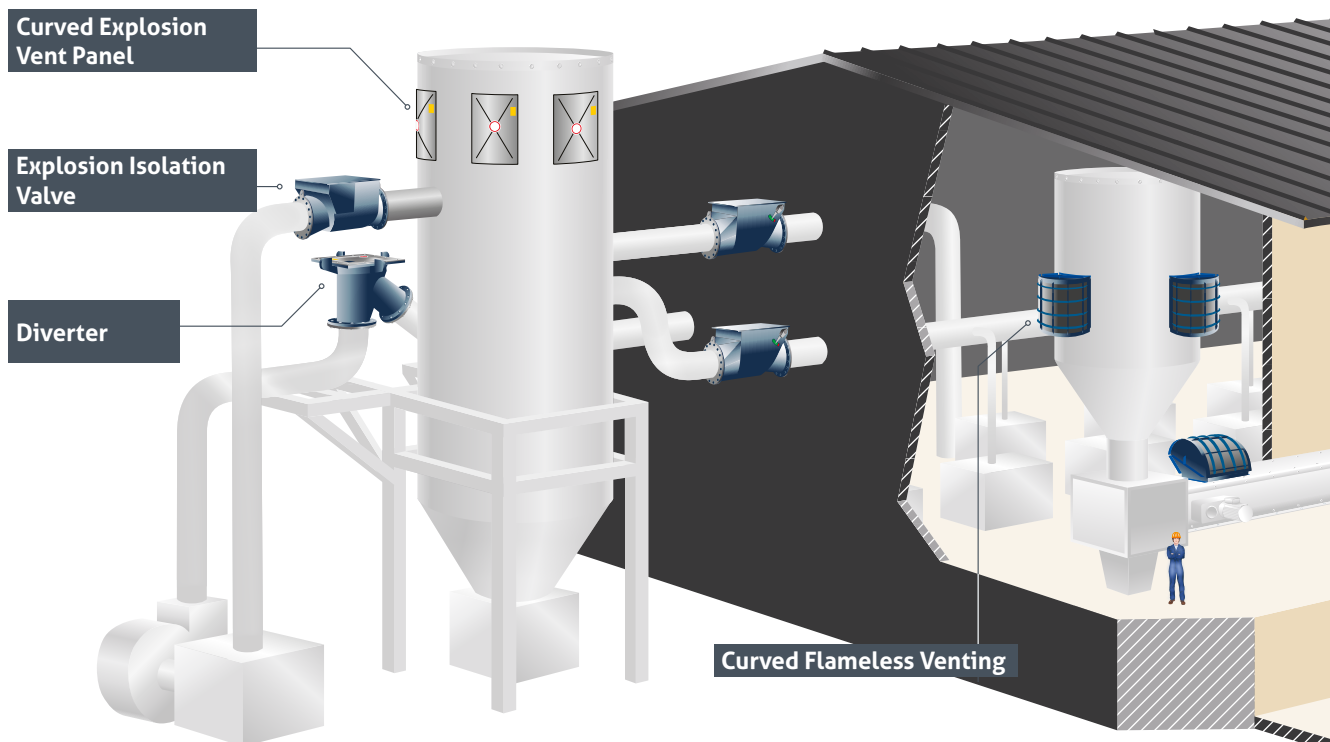
VIGILEX VL	Single flat	8
VIGILEX VL-R	Single curved	10
VIGILEX VL-S	Single flat simple	12
VIGILEX EHEDG	Hygienic applications	14
VIGILEX VD	Single domed	16
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## FLAMELESS DEVICES

VIGILEX VQ	Flameless venting	20
VIGILEX VQ R	Curved flameless venting	22
<b>NEW!</b> VIGILEX VQ	Metal dust flameless venting	23

## OUR DEVICES



## EXPLOSION ISOLATION VALVE

NEW!

VIGIFLAP

Explosion Isolation Valve

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## DIVERTER

V-DEX

Diverter

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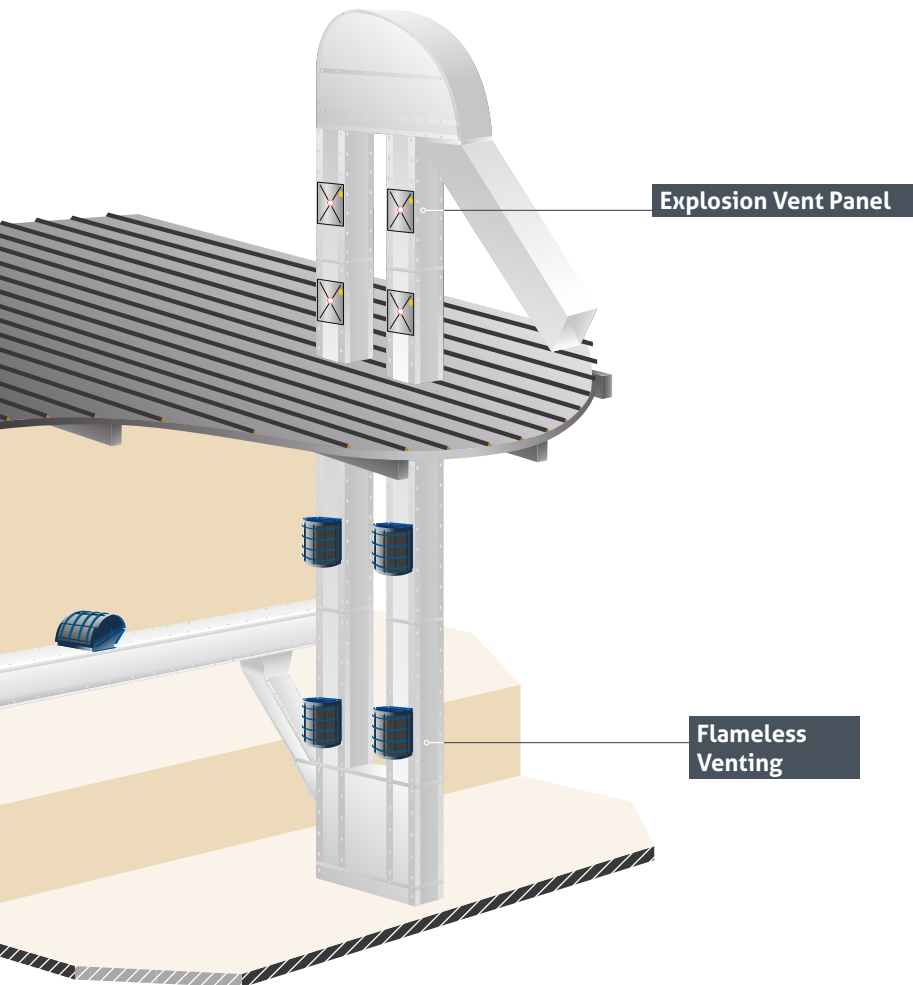
## ACCESSORIES

BURST SENSORS

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OPTIONS

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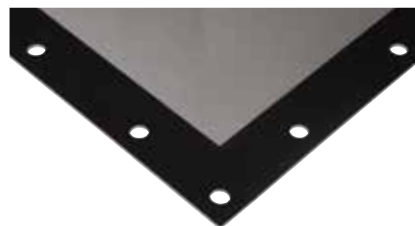
Vacuum resistance : 50 mbar

## APPLICATIONS

The VIGILEX VL is suitable for all applications with low vacuum or low operating pressure such as elevators, conveyors, silos, or cyclones.

VIGILEX VL has an integrated flange covering the breaking point, ensuring strong mechanical durability. The wide gasket provides VIGILEX VL with a perfect dustproof seal.

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



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

### STANDARD CHARACTERISTICS

- Design: Single flat in AISI 304L
- Full frame black EPDM gasket (-40°+80°C)
- Integrated AISI 304L flange

### OPTIONS

- Panel in AISI 316L
- Full frame white silicone FDA gasket (-60°+200°C)
- High temperature graphite 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

- Burst Sensor
- Thermal insulation: Vigilex TI
- Weather protection: Vigilex WI
- Vacuum safety grid
- Pressure relief duct



## DIMENSIONS: VIGILEXVL®

### RECTANGULAR

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
110 x 290	4 x 11	174 x 354	290	520 x 520	20 x 20	600 x 600	2680
150 x 600	6 x 24	230 x 680	885	520 x 620	20 x 24	600 x 700	3200
170 x 470	7 x 19	250 x 550	785	520 x 1020	20 x 40	600 x 1000	5270
220 x 420	9 x 17	300 x 500	910	580 x 1180	23 x 46	670 x 1270	6805
229 x 229	9 x 9	310 x 310	515	586 x 920	23 x 36	666 x 1000	5360
229 x 305	9 x 12	310 x 386	690	610 x 610	24 x 24	690 x 690	3695
247 x 610	10 x 24	327 x 690	1485	610 x 1118	24 x 44	690 x 1198	6785
270 x 458	11 x 18	350 x 538	1220	645 x 645	25 x 25	740 x 740	4130
300 x 500	12 x 20	380 x 580	1480	645 x 1130	25 x 44	735 x 1220	7250
300 x 600	12 x 24	366 x 666	1605	653 x 653	26 x 26	740 x 740	4260
305 x 457	12 x 18	386 x 538	1385	680 x 680	27 x 27	780 x 780	4595
305 x 610	12 x 24	386 x 690	1845	720 x 1020	28 x 40	800 x 1100	7300
319 x 765	12 x 30	405 x 850	2480	780 x 780	30 x 31	880 x 880	6080
340 x 385	13 x 15	404 x 449	1250	780 x 1180	30 x 46	880 x 1280	9160
340 x 440	13 x 17	404 x 504	1430	800 x 1000	31 x 40	890 x 1090	7960
350 x 650	14 x 26	430 x 730	2255	880 x 880	35 x 35	980 x 980	7700
375 x 655	15 x 25	460 x 740	2445	915 x 1118	36 x 44	996 x 1198	10200
390 x 620	15 x 24	470 x 700	2395	920 x 920	36 x 36	1000 x 1000	8425
410 x 410	16 x 16	480 x 480	1660	980 x 980	39 x 39	1080 x 1080	9600
420 x 520	16 x 20	500 x 600	2165	1000 x 1000	40 x 40	1056 x 1056	9680
420 x 920	16 x 36	500 x 1000	3835	1020 x 1020	40 x 40	1100 x 1100	10360
457 x 890	20 x 28	537 x 970	4040	1080 x 1080	42 x 42	1180 x 1180	11600
470 x 610	18 x 24	550 x 690	2845	1130 x 1130	44 x 44	1220 x 1220	12720
480 x 680	19 x 27	580 x 780	3260	1180 x 1180	46 x 46	1280 x 1280	13875
490 x 490	19 x 19	570 x 570	2380	1000 x 2000	40 x 79	1080 x 2080	19940
490 x 590	19 x 23	570 x 670	2865				

Other sizes on request

### ROUND

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
Ø 200	8	Ø 268	310	Ø 600	24	Ø 676	2790
Ø 250	10	Ø 341	480	Ø 700	28	Ø 790	3830
Ø 300	12	Ø 390	695	Ø 750	30	Ø 842	4400
Ø 350	14	Ø 424	930	Ø 800	31	Ø 880	5000
Ø 400	16	Ø 473	1230	Ø 900	36	Ø 980	6280
Ø 450	18	Ø 545	1580	Ø 980	39	Ø 1070	7510
Ø 500	20	Ø 574	1935				

Other sizes on request

### TRAPEZOIDAL (On request)

### TECHNICAL INFORMATION

STIF-MODEL	DESIGN	Pstat@ 22 °C	EFFICIENCY RATIO	MAX. VACUUM	KST MAX.
VL	Single flat Integrated frame	0.1 til 0.5 bar (±15 %)	80 % - 100 %	50 mbar	500 bar m/s



## APPLICATIONS

The VIGILEX VL-R is a curved explosion vent panel shaped according to customer needs.

VIGILEX VL-R is suitable for all applications with low vacuum or low operating pressure such as elevators, conveyors, silos, or cyclones.

VIGILEX VL-R has an integrated flange covering the breaking point, ensuring strong mechanical durability. The wide gasket provides VIGILEX VL-R with 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 production, to ensure that the correct burst pressure is observed.

### STANDARD CHARACTERISTICS

- Design: Single curved in AISI 304L
- Full frame black EPDM gasket (-40°+80°C)
- Integrated AISI 304L flange
- Curved: Radius on request

### OPTIONS

- Panel in AISI 316L
- Full frame white silicone FDA gasket (-60°+200°C)
- High temperature graphite gasket (-200°+500°C)



Vacuum resistance: 50 mbar



Full frame black EPDM gasket  
(-40°+80°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-R

- Burst Sensor
- Thermal insulation: Vigilex TI
- Weather protection: Vigilex WI
- Vacuum safety grid
- Pressure relief duct

## DIMENSIONS: VIGILEX VL-R®

### RECTANGULAR

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
110 x 290	4 x 11	174 x 354	290	520 x 520	20 x 20	600 x 600	2680
150 x 600	6 x 24	230 x 680	885	520 x 620	20 x 24	600 x 700	3200
170 x 470	7 x 19	250 x 550	785	520 x 1020	20 x 40	600 x 1000	5270
220 x 420	9 x 17	300 x 500	910	580 x 1180	23 x 46	670 x 1270	6805
229 x 229	9 x 9	310 x 310	515	586 x 920	23 x 36	666 x 1000	5360
229 x 305	9 x 12	310 x 386	690	610 x 610	24 x 24	690 x 690	3695
247 x 610	10 x 24	327 x 690	1485	610 x 1118	24 x 44	690 x 1198	6785
270 x 458	11 x 18	350 x 538	1220	645 x 645	25 x 25	740 x 740	4130
300 x 500	12 x 20	380 x 580	1480	645 x 1130	25 x 44	735 x 1220	7250
300 x 600	12 x 24	366 x 666	1605	653 x 653	26 x 26	740 x 740	4260
305 x 457	12 x 18	386 x 538	1385	680 x 680	27 x 27	780 x 780	4595
305 x 610	12 x 24	386 x 690	1845	720 x 1020	28 x 40	800 x 1100	7300
319 x 765	12 x 30	405 x 850	2480	780 x 780	30 x 31	880 x 880	6080
340 x 385	13 x 15	404 x 449	1250	780 x 1180	30 x 46	880 x 1280	9160
340 x 440	13 x 17	404 x 504	1430	800 x 1000	31 x 40	890 x 1090	7960
350 x 650	14 x 26	430 x 730	2255	880 x 880	35 x 35	980 x 980	7700
375 x 655	15 x 25	460 x 740	2445	915 x 1118	36 x 44	996 x 1198	10200
390 x 620	15 x 24	470 x 700	2395	920 x 920	36 x 36	1000 x 1000	8425
410 x 410	16 x 16	480 x 480	1660	980 x 980	39 x 39	1080 x 1080	9600
420 x 520	16 x 20	500 x 600	2165	1000 x 1000	40 x 40	1056 x 1056	9680
420 x 920	16 x 36	500 x 1000	3835	1020 x 1020	40 x 40	1100 x 1100	10360
457 x 890	20 x 28	537 x 970	4040	1080 x 1080	42 x 42	1180 x 1180	11600
470 x 610	18 x 24	550 x 690	2845	1130 x 1130	44 x 44	1220 x 1220	12720
480 x 680	19 x 27	580 x 780	3260	1180 x 1180	46 x 46	1280 x 1280	13875
490 x 490	19 x 19	570 x 570	2380	1000 x 2000	40 x 79	1080 x 2080	19940
490 x 590	19 x 23	570 x 670	2865				

Other sizes on request

### TECHNICAL INFORMATION

STIF-MODEL	DESIGN	Pstat@ 22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VL-R	Single flat Integrated frame	0.1 til 0.2 bar (±25 %) 0.2 til 0.5 bar (±20 %)	80 % - 100 %	50 mbar	500 bar m/s



## APPLICATIONS

The VIGILEX VL-S is a low-cost model suitable for all applications with low vacuum or low operating pressure such as elevators, conveyors, silos, or 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).

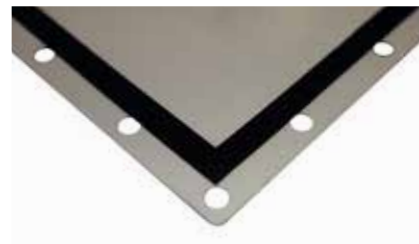
### STANDARD CHARACTERISTICS

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

### OPTIONS

- Panel in AISI 316L
- Silicone FDA gasket (-60°+200°C)
- High temperature CARBON gasket (-200°+500°C)

Vacuum resistance: 50 mbar



Black EPDM gasket (-40°+80°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

- Burst Sensor
- Thermal insulation: Vigilex TI
- Weather protection: Vigilex WI
- Vacuum safety grid
- Pressure relief duct

## DIMENSIONS: VIGILEX VL-S®

### RECTANGULAR

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
110 x 290	4 x 11	174 x 354	290	520 x 520	20 x 20	600 x 600	2680
150 x 600	6 x 24	230 x 680	885	520 x 620	20 x 24	600 x 700	3200
170 x 470	7 x 19	250 x 550	785	520 x 1020	20 x 40	600 x 1000	5270
220 x 420	9 x 17	300 x 500	910	580 x 1180	23 x 46	670 x 1270	6805
229 x 229	9 x 9	310 x 310	515	586 x 920	23 x 36	666 x 1000	5360
229 x 305	9 x 12	310 x 386	690	610 x 610	24 x 24	690 x 690	3695
247 x 610	10 x 24	327 x 690	1485	610 x 1118	24 x 44	690 x 1198	6785
270 x 458	11 x 18	350 x 538	1220	645 x 645	25 x 25	740 x 740	4130
300 x 500	12 x 20	380 x 580	1480	645 x 1130	25 x 44	735 x 1220	7250
300 x 600	12 x 24	366 x 666	1605	653 x 653	26 x 26	740 x 740	4260
305 x 457	12 x 18	386 x 538	1385	680 x 680	27 x 27	780 x 780	4595
305 x 610	12 x 24	386 x 690	1845	720 x 1020	28 x 40	800 x 1100	7300
319 x 765	12 x 30	405 x 850	2480	780 x 780	30 x 31	880 x 880	6080
340 x 385	13 x 15	404 x 449	1250	780 x 1180	30 x 46	880 x 1280	9160
340 x 440	13 x 17	404 x 504	1430	800 x 1000	31 x 40	890 x 1090	7960
350 x 650	14 x 26	430 x 730	2255	880 x 880	35 x 35	980 x 980	7700
375 x 655	15 x 25	460 x 740	2445	915 x 1118	36 x 44	996 x 1198	10200
390 x 620	15 x 24	470 x 700	2395	920 x 920	36 x 36	1000 x 1000	8425
410 x 410	16 x 16	480 x 480	1660	980 x 980	39 x 39	1080 x 1080	9600
420 x 520	16 x 20	500 x 600	2165	1000 x 1000	40 x 40	1056 x 1056	9680
420 x 920	16 x 36	500 x 1000	3835	1020 x 1020	40 x 40	1100 x 1100	10360
457 x 890	20 x 28	537 x 970	4040	1080 x 1080	42 x 42	1180 x 1180	11600
470 x 610	18 x 24	550 x 690	2845	1130 x 1130	44 x 44	1220 x 1220	12720
480 x 680	19 x 27	580 x 780	3260	1180 x 1180	46 x 46	1280 x 1280	13875
490 x 490	19 x 19	570 x 570	2380	1000 x 2000	40 x 79	1080 x 2080	19940
490 x 590	19 x 23	570 x 670	2865				

Other sizes on request

### ROUND

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
Ø 200	8	Ø 268	310	Ø 600	24	Ø 676	2790
Ø 250	10	Ø 341	480	Ø 700	28	Ø 790	3830
Ø 300	12	Ø 390	695	Ø 750	30	Ø 842	4400
Ø 350	14	Ø 424	930	Ø 800	31	Ø 880	5000
Ø 400	16	Ø 473	1230	Ø 900	36	Ø 980	6280
Ø 450	18	Ø 545	1580	Ø 980	39	Ø 1070	7510
Ø 500	20	Ø 574	1935				

Other sizes on request

### TECHNICAL INFORMATION

STIF-MODEL	DESIGN	Pstat@ 22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VL-S	Single flat Integrated frame	0.1 til 0.5 bar (±15 %)	80 % - 100 %	50 mbar	500 bar m/s



## APPLICATIONS

The new VIGILEX EHEDG is designed especially for hygienic applications in food- or pharmaceutical industry and is applicable to systems with low vacuum or low operating pressure, e.g. spray dryers. This panel is equipped with a patented gasket and is EHEDG certified. The high technology design of this panel avoids contamination.

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

### STANDARD CHARACTERISTICS

- Design: single flat in AISI 316L
- White silicone FDA gasket (-60°+200°C)
- Integrated AISI 304L flange
- Clean design
- Bacteriological barrier

**FINAL APPROVAL  
EXPECTED IN Q1 2019!**

Vacuum resistance: 50 mbar



TYPE EL CLASS I

## 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 EHEDG

- Burst Sensor
- Thermal insulation: Vigilex TI
- Weather protection: Vigilex WI
- Vacuum safety grid
- Pressure relief duct

DIMENSIONS: VIGILEX EHEDG®  

## RECTANGULAR

INTERNAL DIMENSION		EXTERNAL DIMENSION		AREA
(mm)	Inches	(mm)		(cm <sup>2</sup> )
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-EHEDG	Single flat Integrated frame	0.1 til 0.5 bar (±15 %)	80 % - 100 %	50 mbar	500 bar m/s



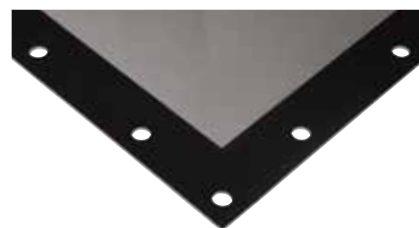


Vacuum resistance : 200 mbar

## APPLICATIONS

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

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



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

### STANDARD CHARACTERISTICS

- Design: single domed in AISI 304L
- Full frame black EPDM gasket (-40°+80°C)
- Integrated AISI 304L flange

### OPTIONS

- Panel in AISI 316L
- Full frame white silicone FDA gasket (-60°+200°C)
- High temperature graphite 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 VD

- Burst Sensor
- Thermal insulation: Vigilex TI
- Weather protection: Vigilex WI
- Vacuum safety grid
- Pressure relief duct



## DIMENSIONS: VIGILEXVD®

### RECTANGULAR

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
150 x 600	6 x 24	230 x 680	885	457 x 890	20 x 28	537 x 970	4040
170 x 470	6 x 19	250 x 550	785	470 x 610	18 x 24	550 x 690	2845
205 x 290	8 x 11	285 x 370	580	490 x 490	19 x 19	570 x 570	2380
220 x 420	9 x 17	300 x 500	910	490 x 590	19 x 23	570 x 670	2865
229 x 229	9 x 9	310 x 310	515	525 x 668	21 x 26	630 x 765	3400
229 x 305	9 x 12	310 x 386	690	586 x 920	23 x 36	666 x 1000	5360
247 x 610	10 x 24	327 x 690	1485	610 x 610	24 x 24	690 x 690	3695
270 x 458	11 x 18	350 x 538	1220	610 x 1118	24 x 44	690 x 1198	6785
300 x 500	12 x 20	380 x 580	1480	645 x 645	25 x 25	735 x 735	4130
305 x 457	12 x 18	386 x 538	1385	645 x 1130	25 x 44	735 x 1220	4130
305 x 610	12 x 24	386 x 690	1845	653 x 653	26 x 26	740 x 740	4260
340 x 385	13 x 15	404 x 449	1250	915 x 1118	36 x 44	996 x 1198	10200
340 x 440	13 x 17	404 x 504	1430	920 x 1380	36 x 54	1000 x 1460	12420
350 x 650	14 x 26	430 x 730	2255	980 x 980	39 x 39	1080 x 1080	9600
375 x 655	15 x 26	460 x 740	2445	1020 x 1020	40 x 40	1100 x 1100	10360
410 x 410	16 x 16	480 x 480	1660				

Other sizes on request

### ROUND

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
Ø 200	8	Ø 268	310	Ø 600	24	Ø 676	2790
Ø 250	10	Ø 341	480	Ø 700	28	Ø 790	3830
Ø 300	12	Ø 390	695	Ø 750	30	Ø 842	4400
Ø 350	14	Ø 424	930	Ø 800	31	Ø 880	5000
Ø 400	16	Ø 473	1230	Ø 900	36	Ø 980	6280
Ø 450	18	Ø 545	1580	Ø 980	39	Ø 1070	7510
Ø 500	20	Ø 574	1935				

Other sizes on request

### TECHNICAL INFORMATION

STIF-MODEL	DESIGN	Pstat@ 22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VD	Single domed Integrated frame	0.1 til 0.5 bar (±15 %)	80 % - 100 %	200 mbar	500 bar m/s



## APPLICATIONS

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

With an integrated flange and gasket, this one-layer domed panel meets most safety requirements for protection of your 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 in AISI 304L
- Full frame black EPDM gasket (-40°+80°C)
- Integrated AISI 304L flange

### OPTIONS

- Panel in AISI 316L
- Full frame white silicone FDA gasket (-60°+200°C)
- High temperature graphite gasket (-200°+500°C)



Vacuum resistance: 200 - 600 mbar



Full frame  
black EPDM gasket (-40°+80°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 VD-HV

- Burst Sensor
- Thermal insulation: Vigilex TI
- Weather protection: Vigilex WI
- Vacuum safety grid
- Pressure relief duct

## DIMENSIONS: VIGILEX VD-HV®

### RECTANGULAR

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
150 x 600	6 x 24	230 x 680	885	457 x 890	20 x 28	537 x 970	4040
170 x 470	6 x 19	250 x 550	785	470 x 610	18 x 24	550 x 690	2845
205 x 290	8 x 11	285 x 370	580	490 x 490	19 x 19	570 x 570	2380
220 x 420	9 x 17	300 x 500	910	490 x 590	19 x 23	570 x 670	2865
229 x 229	9 x 9	310 x 310	515	525 x 668	21 x 26	630 x 765	3400
229 x 305	9 x 12	310 x 386	690	586 x 920	23 x 36	666 x 1000	5360
247 x 610	10 x 24	327 x 690	1485	610 x 610	24 x 24	690 x 690	3695
270 x 458	11 x 18	350 x 538	1220	610 x 1118	24 x 44	690 x 1198	6785
300 x 500	12 x 20	380 x 580	1480	645 x 645	25 x 25	735 x 735	4130
305 x 457	12 x 18	386 x 538	1385	645 x 1130	25 x 44	735 x 1220	4130
305 x 610	12 x 24	386 x 690	1845	653 x 653	26 x 26	740 x 740	4260
340 x 385	13 x 15	404 x 449	1250	915 x 1118	36 x 44	996 x 1198	10200
340 x 440	13 x 17	404 x 504	1430	920 x 1380	36 x 54	1000 x 1460	12420
350 x 650	14 x 26	430 x 730	2255	980 x 980	39 x 39	1080 x 1080	9600
375 x 655	15 x 26	460 x 740	2445	1020 x 1020	40 x 40	1100 x 1100	10360
410 x 410	16 x 16	480 x 480	1660				

Other sizes on request

### ROUND

INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA	INTERNAL DIMENSION		EXTERNAL DIMENSION	AREA
(mm)	Inches	(mm)	(cm <sup>2</sup> )	(mm)	Inches	(mm)	(cm <sup>2</sup> )
Ø 200	8	Ø 268	310	Ø 600	24	Ø 676	2790
Ø 250	10	Ø 341	480	Ø 700	28	Ø 790	3830
Ø 300	12	Ø 390	695	Ø 750	30	Ø 842	4400
Ø 350	14	Ø 424	930	Ø 800	31	Ø 880	5000
Ø 400	16	Ø 473	1230	Ø 900	36	Ø 980	6280
Ø 450	18	Ø 545	1580	Ø 980	39	Ø 1070	7510
Ø 500	20	Ø 574	1935				

Other sizes on request

### TECHNICAL INFORMATION

STIF-MODEL	DESIGN	Pstat @ 22 °C	EFFICIENCY RATIO	MAX VACUUM	KST MAX
VD-HV	Single domed Integrated frame	0.1 til 0.5 bar (±15 %)	80 % - 100 %	200 – 600 mbar	500 bar m/s



# FLAME ARRESTOR

## APPLICATIONS

The VIGILEX VQ is a flameless device with an integrated standard VIGILEX explosion vent panel.

It can be used both indoor and outdoor and is an easy installable alternative to cumbersome and expensive safety solutions with pipe installations into open air. VIGILEX VQ exerts low pressure resistance, eliminating the spread of flames and embers. During the early stage of an explosion, the vent panel opens, and flames, embers and unburned dust will enter the flame arrester element. Flame propagation beyond the VQ is prevented by energy dissipation in the filter element, thereby reducing temperature below the ignition point of the burning material. The dust is retained within the VQ, and gases from the explosion are vented through the device into the external air around the device.

### STANDARD CHARACTERISTICS

- VL flat vent panel or VD domed vent panel included
- Mild steel body + coating
- AISI 304L mesh
- Burst sensor VIGILEX SEC included



Different colours on request

## CERTIFICATIONS

Ex II GD  
Ex II 2 D

EN 16009

EC Certificate: INERIS 14ATEX0049 X

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 AISI 304L or AISI 316L

**DIMENSIONS:** **VIGILEXVQ LW®** Pred: 0,5 bar (Light weight)  
**VIGILEXVQ HW®** Pred: 2,3 bar

## FLAME ARRESTOR

### VIGILEX VQ SPECIFICATIONS

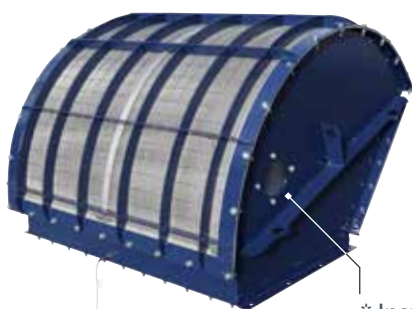
VIGILEX VQ	IN COMBINATION WITH VENT PANEL		BOLT-SPEC		
	MODEL	Nominal Size (mm/inch)	Nominal Square (m <sup>2</sup> /ft <sup>2</sup> )	Qty	Size
VIGILEX VQ 170x470	170 x 470 mm	7 x 19 "	0.0785 m <sup>2</sup> 0.845 sq ft	20	M10x30
VIGILEX VQ 270x458	270 x 458 mm	11 x 18 "	0.1220 m <sup>2</sup> 1.315 sq ft	22	M10x30
VIGILEX VQ 300x500	300 x 500 mm	12 x 20 "	0.1480 m <sup>2</sup> 1.595 sq ft	24	M10x30
VIGILEX VQ 305x610	305 x 610 mm	12 x 24 "	0.1840 m <sup>2</sup> 1.980 sq ft	26	M10x30
VIGILEX VQ 350x650	350 x 650 mm	14 x 26 "	0.2250 m <sup>2</sup> 2.425 sq ft	26	M10x30
VIGILEX VQ 490x590	490 x 590 mm	19 x 23 "	0.2865 m <sup>2</sup> 3.084 sq ft	32	M10x30
VIGILEX VQ 610x610	610 x 610 mm	24 x 24 "	0.3695 m <sup>2</sup> 3.975 sq ft	32	M10x30
VIGILEX VQ 457x890	457 x 890 mm	18 x 35 "	0.4040 m <sup>2</sup> 4.349 sq ft	34	M10x30
VIGILEX VQ 586x920	586 x 920 mm	23 x 36 "	0.5360 m <sup>2</sup> 5.770 sq ft	42	M10x30
VIGILEX VQ 645x1130	645 x 1130 mm	25 x 44 "	0.7250 m <sup>2</sup> 7.804 sq ft	34	M10x30
VIGILEX VQ 920x920	920 x 920 mm	36 x 36 "	0.8425 m <sup>2</sup> 9.068 sq ft	50	M10x30
VIGILEX VQ 1130x1130	1130 x 1130 mm	44 x 44 "	1.2720 m <sup>2</sup> 13.696 sq ft	58	M10x30

## TECHNICAL INFORMATION

VIGILEX VQ LW	Kst MAX 500	PMAX ≤ 10 bar	Pred ≤ 0.5 bar	Pstat = 0.1 til 0.3 bar
VIGILEX VQ HW	Kst MAX 500	PMAX ≤ 10 bar	Pred ≤ 2.3 bar *	Pstat = 0.1 til 0.5 bar

\*Pred < 1.85 for VQ 920x920 og 1130x1130

## ADVANTAGES



\* Inspection window

Access door



\* Only available on VQ LW



# FLAME ARRESTOR - CURVED



## APPLICATIONS

The VIGILEX VQ R is a curved, rectangular flameless device connected with a standard explosion vent panel VIGILEX VL R.

This curved flameless device can be installed directly on cylindrical vessels, thereby minimizing material accumulation in front of the explosion vent panel.

### STANDARD CHARACTERISTICS

- VL-R vent panel with silicone gasket included
- Mild steel body + coating
- AISI 304L mesh
- Burst sensor VIGILEC SEC included
- Sizes page 21
- Radius on request



## ACCESSORIES FOR VIGILEX VQ R

- Sanitary Cover



- Body made of AISI 304L or AISI 316L

NEW!

## FLAME ARRESTOR - METAL DUST CERTIFIED BY EN 16009

Metal dust explosions can be catastrophic.

VIGILEX VQ - METAL DUST is certified to protect all facilities, equipment and machinery which process combustible metals. VIGILEX VQ - METAL DUST is therefore the optimal safety device for these applications.

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



## FLAME ARRESTOR - STAINLESS STEEL: VIGILEXVQ SST®



### APPLICATIONS

The VIGILEX VQ SST is a flameless device connected with a standard VIGILEX explosion vent panel. It is a perfect safety option for food- or pharmaceutical facilities or installation in humid surroundings. VIGILEX VQ SST provides effective low pressure resistance, eliminating the spread of flames and embers.

#### STANDARD CHARACTERISTICS

- VL or VD explosion vent panel with silicone gasket included
- Body in AISI 304L or AISI 316L
- AISI 304L mesh
- Burst sensor VIGILEC SEC included

#### ACCESSORIES FOR VIGILEX VQ SST

- Sanitary Cover





## EXPLOSION ISOLATION VALVE

AVAILABLE 2019

## APPLICATIONS

The VigiFLAP barrier valve is designed to prevent overpressure or flames caused by a downstream explosion (in dust collectors, filters, cyclones, etc), to propagate in the duct 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, allowing isolation of the filter in case of an explosion or overpressure.

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

### STANDARD CHARACTERISTICS

- Body in Painted steel
- Flap in AISI 304L
- Diameter: Ø160 mm to Ø850 - expected certified Q1 2019  
Ø900 mm to Ø1310 - expected certified Q3 2019
- Gasket: Silicone FDA (-60°+200°C)
- Burst Sensor: The sensor registers and indicates closing in case of an explosion or overpressure

### CERTIFICATIONS

EN 16447  
EN 15089  
NFPA 69

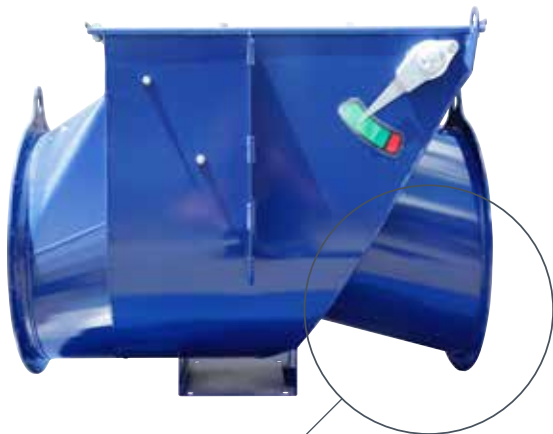


## OPTIONS FOR VIGIFLAP

- Body in Galvanized steel
- Body in AISI 304L or AISI 316L
- Accumulated dust level: Sensor to register dust accumulation
- Connection box installed on the body, according to the ATEX zone (opposite side of the locking mechanism)



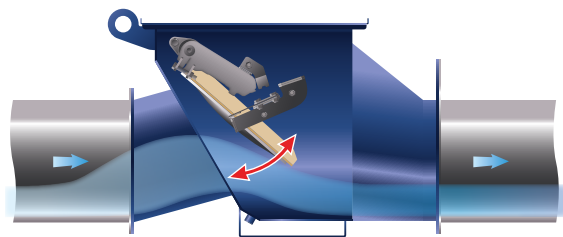
## TECHNICAL INFORMATION: VIGIFLAP®



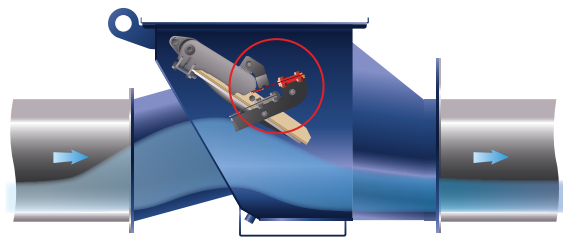
Non-dust accumulation design

**CAN ALSO BE USED ON CLEAN AIR OUTLET**

### FLAP POSITIONS

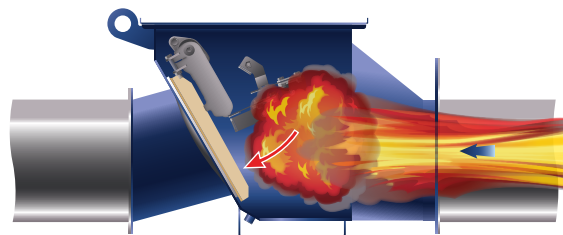


Flap stays open by process flow.



Flap is locked in open position.

### EXPLOSION EVENT



Flap is closed by explosion and stays locked; released by manual unlocking.

## TECHNICAL INFORMATION

KST MAX	St1 ≤ 200 bar m/s St2 ≤ 300 bar m/s	DUST	Any kind of dust	POSITION OF THE DEVICE	Horizontal +/- 10%
KST MIN	≤ 50 bar m/s	AMBIENT TEMPERATURE	-20 °C... +60 °C	FLUX	Vacuum or high pressure
PMAX	≤ 10 bar	SPEED FLOW	15 m/s... 35 m/s	FLOW TEMPERATURE	≤ 80 °C
INTERIOR	ATEX-zone 20	DUST CONCENTRATION	No limit		

# DIVERTER



## APPLICATIONS

The V-DEX diverter deflects explosions propagating through the duct system, thereby preventing the spread of flames or overpressure in connected vessels.

### STANDARD CHARACTERISTICS

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

Diverter

## CERTIFICATIONS

EN 15089  
EN 14 797  
EN 14 491



## ACCESSORIES FOR V-DEX

- Body in AISI 304L or AISI 316L

**DIMENSIONS: V-DEX®**  

**DIVERTER CHARACTERISTICS**

MODEL	Ø	H1	H2	D1	D2	L1	L2	T	Vent panel
Model A	Ø 200	150	555	200	410	410	410	685	VD410x410
	Ø 250	175	600	250	490	490	490	781	VD490x490
	Ø 300	200	700	300	610	610	610	875	VD610x610
	Ø 350	225	800	350	645	645	645	975	VD645x645
	Ø 400	250	900	400	780	780	780	1070	VD780x780
	Ø 450	275	1000	450	850	920	920	1165	VD920x920
	Ø 500	300	1100	500	920	920	920	1260	VD920x920
	Ø 550	325	1200	550	980	980	980	1355	VD980x980
	Ø 600	350	1300	600	1070	1020	1020	1455	VD1020x1020
	Ø 650	375	1400	650	1180	1180	1180	1550	VL1180x1180
Model B	Ø 700	400	1500	700	1250	1375	1130	1645	VL645x1130 (2 pcs)
	Ø 750	425	1600	750	1350	1455	1350	1740	VL685x1350 (2 pcs)
	Ø 800	450	1700	800	1430	1455	1350	1835	VL685x1350 (2 pcs)
	Ø 850	475	1800	850	1520	1605	1520	1930	VL760x1520 (2 pcs)
	Ø 900	500	1900	900	1600	1605	1520	2030	VL760x1520 (2 pcs)
	Ø 950	525	2000	950	1700	1785	1780	2125	VL850x1780 (2 pcs)
	Ø 1000	550	2100	1000	1780	1785	1780	2220	VL850x1780 (2 pcs)

**TECHNICAL INFORMATION**

STIF-MODEL	KST MAX	Pred. MAX	PMAX	STØV
V-DEX	St2 ≤ 300bar m/s	0.8bar m/s	≤ 10bar	Any kind of dust

# BURST SENSORS

## APPLICATIONS

A BURST SENSOR informs you when safety devices are open. Get the signal in realtime and increase the safety of your facilities.

### VIGILEX MEG

Magnetic burst sensor

- ATEX Zone 21
- Voltage: 12-60V DC



### VIGILEX SEC

Breakable burst sensor

- ATEX Zone 21
- Voltage: 12-24V DC



### VIGILEX CAB

Breakable cable burst sensor

- Voltage max 1.5 DC
- Current max 100 mA
- Power max 25 mW



### M-JET LINK

Connection box

- ATEX Zone 21
- To connect the burst sensor and control unit



## OTHER ACCESSORIES

### VIGILEX TI

#### Thermal insulation

The ARMAFLEX covered with aluminium foil prevents heat loss and condensation, as well as offers UV protection.



### VIGILEX WI

#### Weather protection

This lightweight weather cover protects the explosion vent panel from tear of weather as well as minimize dirt.



### VIGILEX CAP

#### Pressure relief duct

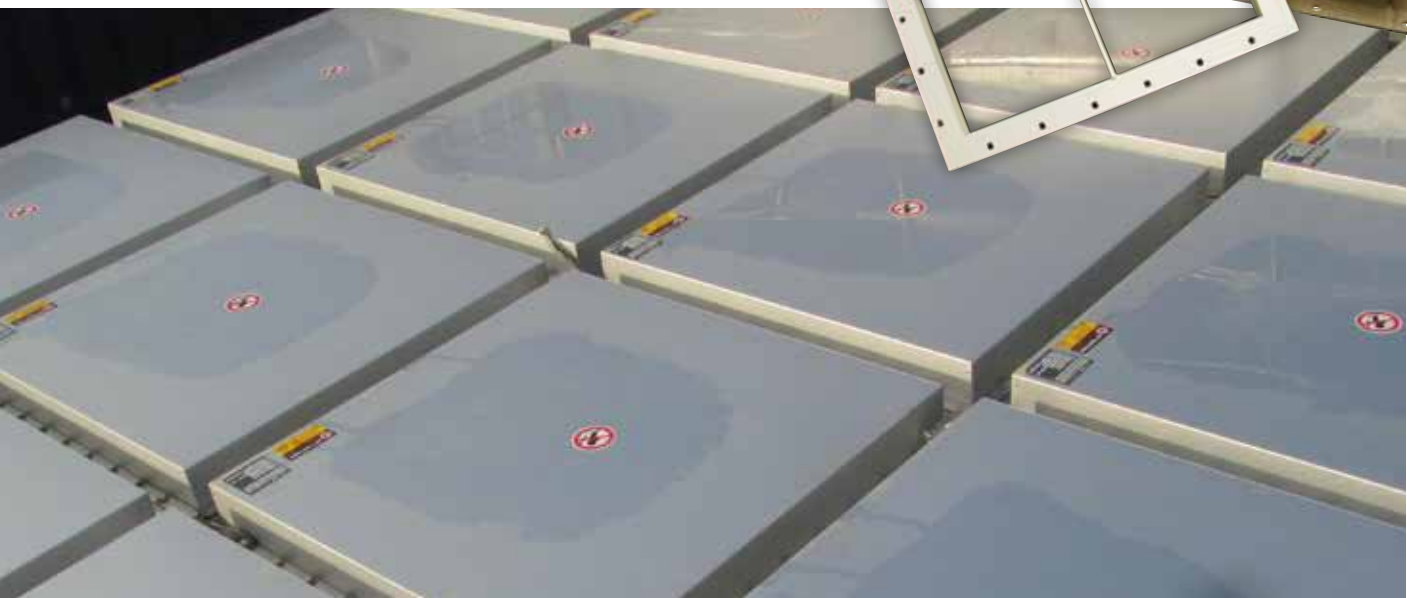
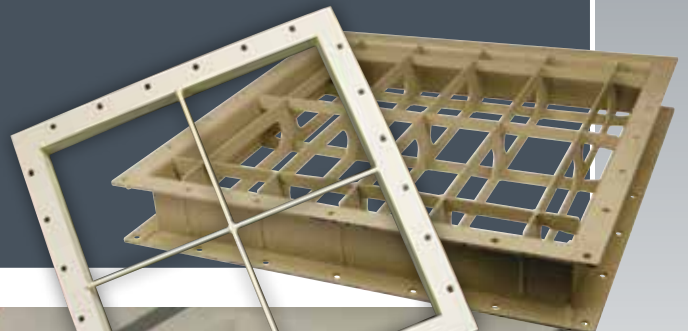
Galvanized steel, AISI 304L or in AISI 316L.



### VIGILEX GS & GD

#### Vacuum safety grid

Fall and vacuum protection in painted steel, galvanized steel, AISI 304L or AISI 316L.





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