HITEK
Petrol Equipment

THE WORLD TO TRUST
HIGH QUALITY
BEST PRICE
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PRODUCT RANGES

- BREATHER VALVE WITH FLAME ARRESTER - BVFA
- BREATHER VALVE - BV
- IN LINE DETONATION FLAME ARRESTER - DFA
- IN LINE DEFLAGRATION FLAME ARRESTER - HFA
- END LINE FLAME ARRESTER - TFA
- END LINE FLAME ARRESTER - LFA
- EMERGENCY VENT - HEV
- GAUGE HATH - HGH

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Mail: sales@hitek.tw
ADD: No.28, lane 99, 2 Beiping Road, Taichung City, Taiwan

Breather valve with flame arrester

Figure: HITEK – BVFA

According to API 2000 code, BS7244 and EN 12874. The BVFA is designed, manufactured and tested by HITEK
The pressure vacuum relief valves combined with flame arresters are used on liquid storage tanks and other process vessels or systems to prevent structural damage due to excess internal vacuum. Storage tanks are pressurized when liquid is pumped in, compressing the existing vapor or when rising temperatures cause increased evaporation or expansion of existing vapor. Conversely, a vacuum condition may be created when pumping out or due to falling temperature, vapor must be allowed out of the tank at specified vacuum condition.
The volume rate of venting depends upon the tank size, volatility of the tank contents, the pumping rates and the temperature. This is the safe breather valve to control deflation (vacuum) and inflation (pressure) of several storage tanks

Product name: Breather valve with flame arrester

Model: BVFAA (Aluminum)

BVFAC (Carbon steel)

BVFAS (SS304/SS316)

Internal: SS304

Element: SS304/SS316/SS316L

Design standard: API 2000

Type: Explosion flame arrester

Set pressure: max. + 700mmW.C/ - 500mmW.C

Flame cell (Element): IIA (standard) or (IIB/IIC)

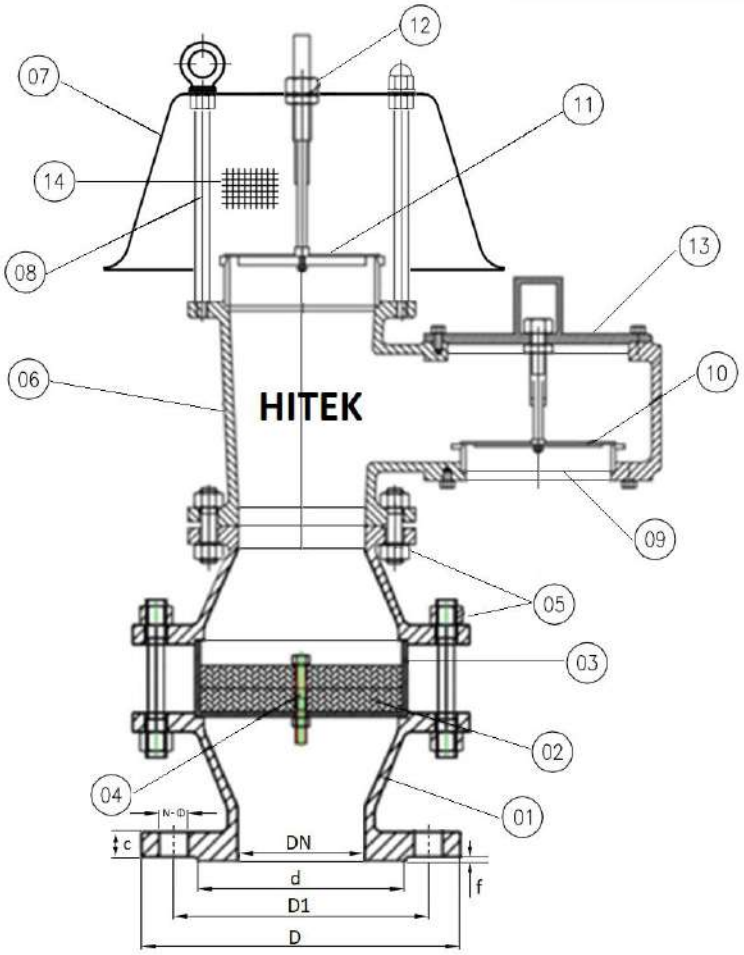
Flange standard: ASME B16.6(or requested by JIS/DIN)

Size 50mm – 300mm

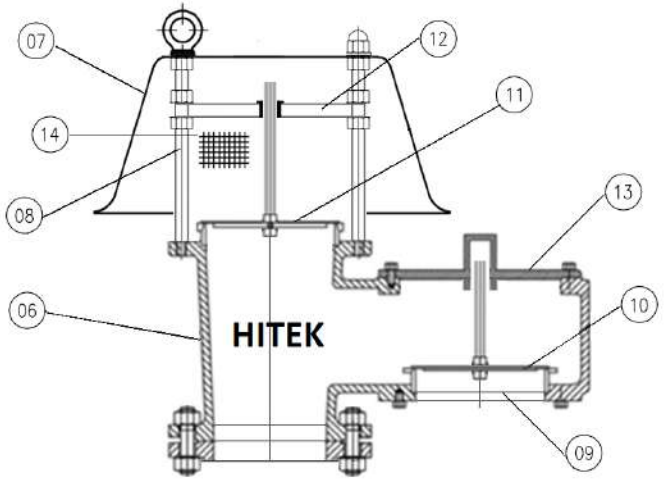
DETAILED REQUEST

Project name:
End user (client)
Model and size: requested by client as above specs
Material: as above specs
Set pressure: requested client
Detailed materials: see the part name
End connection: ASME B16.6(or requested by JIS/DIN)
Design and produce: API 2000
Tested by: Hitek.tw

Part No	Part name	Aluminum	Cast steel	Stainless steel	Stainless steel
1	Body of flame arrester	B26 -319.F	A216-WCB	SS304	SS316
2	Flame element	SS316/SS316L	SS316/SS316L	SS316/SS316L	SS316/SS316L
3	Element ring	PTFE	PTFE	PTFE	PTFE
4	Guide rod	SS304	SS304	SS304	SS316
5	Bolt & gasket	SS304	SS304	SS304	SS316
6	Body of breather valve	B26 -319.F	A216-WCB	SS304	SS316
7	Cap	SS304	SS304	SS304	SS304
8	Stub bolt	SS304	SS304	SS304	SS316
9	Vacuum screen	SS304	SS304	SS304	SS316
10	Vacuum disc	SS304/PTFE	SS304/PTFE	SS304/PTFE	SS316/PTFE
11	Pressure disc	SS304/PTFE	SS304/PTFE	SS304/PTFE	SS316/PTFE
12	Disc stem	SS304	SS304	SS304	SS316
13	Cover	B26 -319.F	A216-WCB	SS304	SS316
14	Dust screen	SS304	SS304	SS304	SS316



SIZE	DN	D	D1	d	C	f	N-ØL
2”	50	150	120.5	92.1	17.5	2	4- ø18
3”	80	190	152.5	127	22.3	2	4- ø18
4”	100	230	190.5	157.2	22.3	2	8- ø18
6”	150	280	241.5	215.9	23.9	2	8- ø22
8”	200	345	298.5	269.9	27	2	8- ø22
10”	250	405	362	323.8	28.6	2	12- ø26
12”	300	485	431.8	381	30.2	2	12- ø26



NEW DESIGN BY HITEK

DESIGNED BY **HITEK PETROLEUM EQUIPMENT CO., LTD**

Breather valve

Figure: HITEK - BV

According to API 2000 code, BS7244, EN 12874, the BV is designed, manufactured and tested by HITEK

Breather Valves, also called Pressure/Vacuum Relief Valves, are special types of Relief Valves which are specifically designed for tank protection. The range includes pressure only, vacuum only and combined Pressure/Vacuum Valves, all available with flanged outlets or vented to atmosphere. They are used extensively on bulk storage tanks, including fixed roof tanks with floating covers, to minimize evaporation loss and prevent the build- up of excessive pressure or vacuum which can unbalance the system or damage the storage vessel.

They are manufactured with any different material according to different medium such as petroleum, chemical, food industry, totally satisfy every kind of storage system process requirements

Product name: Breather valve

Model: BVA (Aluminum)

BVC (Carbon steel)

BVS (SS304/SS316)

Internal: SS304

Element: SS304/SS316/SS316L

Design standard: API 2000

Type: Explosion flame arrester

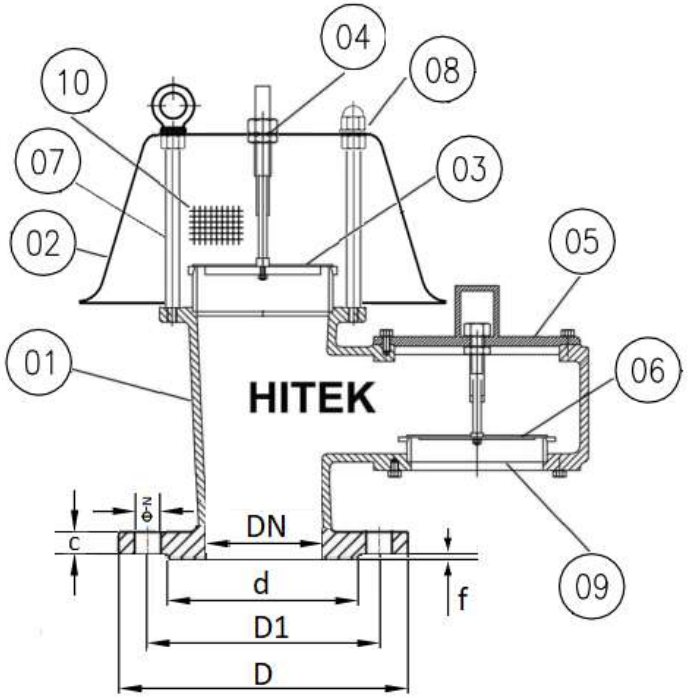
Set pressure: max. + 700mmW.C/ - 430mmW.C

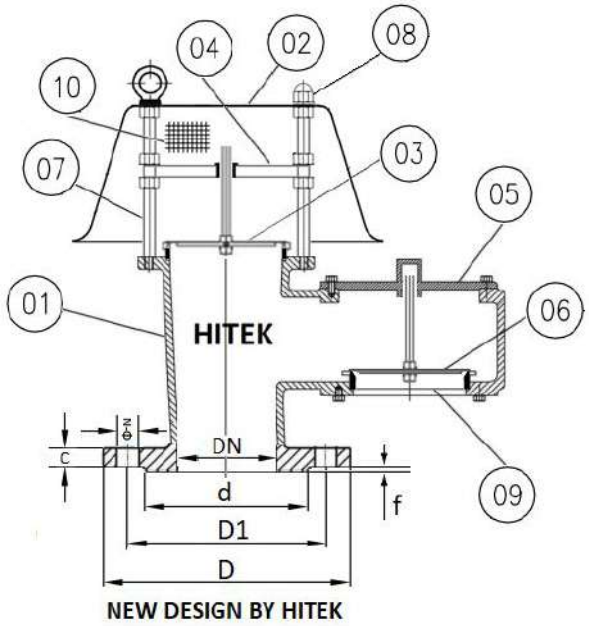
Flange standard: ASME B16.6(or requested by JIS/DIN)

Size 50mm – 300mm

Part No	Part name	Aluminum	Cast steel	Stainless steel	Stainless steel
1	Body	B26 -319.F	A216-WCB	SS304	SS316
2	Cap	SS304	SS304	SS304	SS304
3	Pressure disc	SS304/PTFE	SS304/PTFE	SS304/PTFE	SS316/PTFE
4	Disc stem	SS304	SS304	SS304	SS316
5	Cover	B26 -319.F	A216-WCB	SS304	SS316
6	Vacuum disc	SS304/PTFE	SS304/PTFE	SS304/PTFE	SS316/PTFE
7	Stub bolt	SS304	A216-WCB	SS304	SS316
8	Nut	SS304	SS304	SS304	SS316
9	Vacuum screen	SS304	SS304	SS304	SS316
10	Dust screen	SS304	SS304	SS304	SS316

SIZE	DN	D	D1	d	C	f	N-ØL
2”	50	150	120.5	92	19.5	2	4- ø18
3”	80	190	152.5	127	24	2	4- ø18
4”	100	230	190.5	157.5	24	2	8- ø18
6”	150	280	241.5	216	25.5	2	8- ø22
8”	200	345	298.5	270	29	2	8- ø22
10”	250	405	362	324	30.5	2	12- ø26
12”	300	485	432	381	32	2	12- ø26





NEW DESIGN BY HITEK

DESIGNED BY **HITEK PETROLEUM EQUIPMENT CO., LTD**

In line detonation flame arrester

Figure: HITEK - DFA

According to API 2000 code, BS7244, the DFA is designed, manufactured and tested by HITEK
A detonation flame arrester is another safety device installed in a piping system. A detonation is defined as a flame front propagating through a flammable gas or vapor at a velocity equal to or greater than ten pipe diameters from the installation of the arrester or when there is a possible restriction in the line. HITEK's Detonation flame arresters Bi-Directional and can be installed in a vertical or horizontal piping installation. The model DFA has been successfully tested and KIMM approved in accordance with BS7244 (1999) Detonation flame arrester suitable for applications where stationary flames may rest on the element. In case of an ignition of explosive mixtures within longer pipelines the flame front spreads with increasing speed towards the unburnt explosive mixtures with the effect that the flame connects to a shock wave within this long pipe

All flame arresters are bi-directional and the installation on a tank or piping system depends to a great extent on the design of the system

Product name: In line detonation flame arrester

Model: DFAA (Aluminum)

DFAC (Carbon steel)

DFAS (SS304/SS316)

Element: SS304/SS316/SS316L

Design standard: API 2000

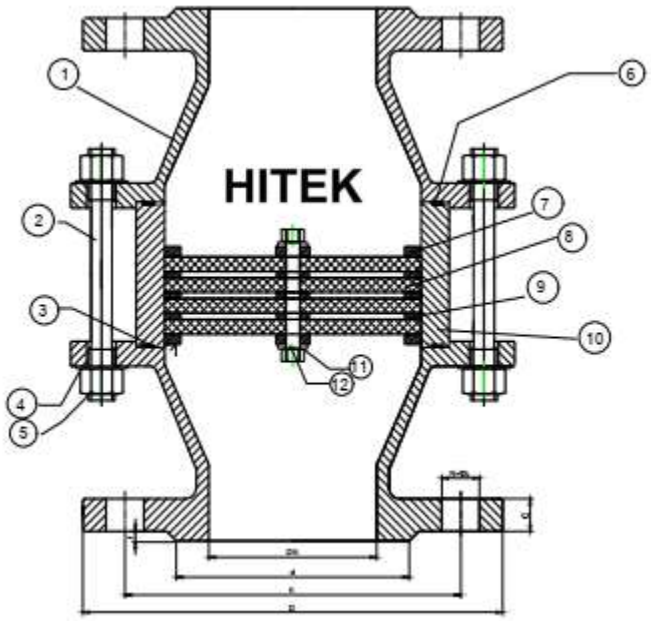
Type: Explosion flame arrester

Flame cell (Element): IIA or (IIB, IIC)

Flange standard: ASME B16.6(or requested by JIS/DIN)

Size 50mm – 300mm

Part No	Part name	Aluminum	Cast steel	Stainless steel	Stainless steel
1	Body	B26 -319.F	A216-WCB	SS304	SS316
2	Stub bolt	SS304	SS304	SS304	SS316
3	Gasket	PTFE	PTFE	PTFE	PTFE
4	Washer	SS304	SS304	SS304	SS316
5	Nut	SS304	SS304	SS304	SS316
6	Gasket	PTFE	PTFE	PTFE	PTFE
7	Flame platen	SS304	SS304	SS304	SS316
8	Flame element	SS304	SS304	SS304	SS316
9	Interlayer	SS304	SS304	SS304	SS316
10	Element case	B26 – 319.F	A216 WCB	SS304	SS316
11	Hexagonal screw	SS304	SS304	SS304	SS316
12	Washer	SS304	SS304	SS304	SS316



SIZE	DN	D	D1	d	C	f	N-ØL
2”	50	150	120.5	92	19.5	2	4- ø18
3”	80	190	152.5	127	24	2	4- ø18
4”	100	230	190.5	157.5	24	2	8- ø18
6”	150	280	241.5	216	25.5	2	8- ø22
8”	200	345	298.5	270	29	2	8- ø22
10”	250	405	362	324	30.5	2	12- ø26
12”	300	485	432	381	32	2	12- ø26

DESIGNED BY **HITEK PETROLEUM EQUIPMENT CO., LTD**

In line deflagration flame arrester

Figure: HITEK - HFA

According to API 2000 code, BS7244, the HFA is designed, manufactured and tested by HITEK
Model HFA, also called deflagration flame arrestor/ bi-directional type and designed to be installed in “open vent pipes” from storage or processing tanks, bleed lines or other vapor conveying lines. The flame arrester consists of a spiral wound and crimped bank element, is designed for easy maintenance. A majority of the time, a “vent to atmosphere” pressure / vacuum valve is installed on top of the flame arrester. A flame arrester is also used as in-line safety device where combustible gases are transported through low pressure pipe lines to actual combustion, as in an incinerator or flare or where combustion fumes are vented through piping to atmosphere where lightning can cause a flame. Flame arresters should be designed to stop tank farm fires caused by lightning, sparking, a flame arrester must act as a barrier (stop a flame), a flame holder (contain the flame at the barrier), and dissipate heat in order to prevent auto ignition on the down side of the flame arrester
All flame arresters are bi-directional and the installation on a tank or piping system depends to a great extent on the design of the system

Product name: In line deflagration flame arrester

Model: HFAA (Aluminum)

HFAC (Carbon steel)

HFAS (SS304/SS316)

Element: SS304/SS316/SS316L

Design standard: API 2000

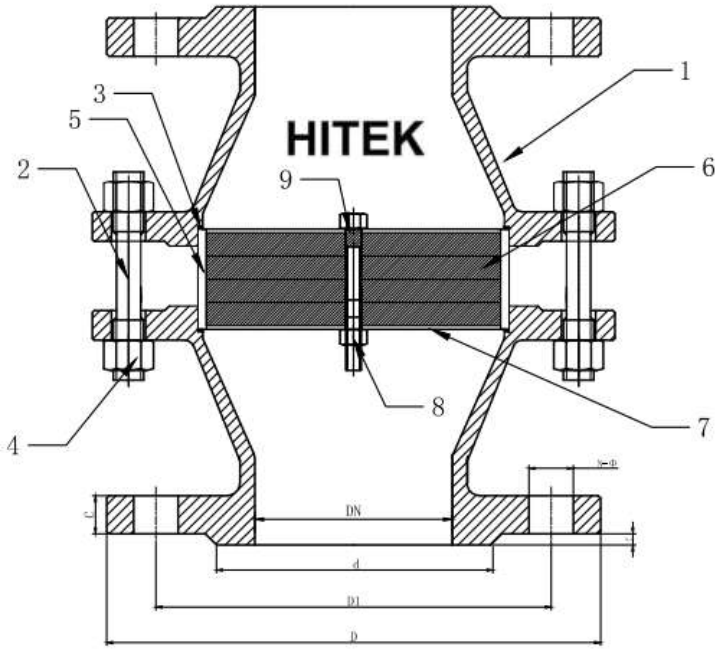
Type: Explosion flame arrester

Flame cell (Element): IIA or (IIB, IIC)

Flange standard: ASME B16.6(or requested by JIS/DIN)

Size 50mm – 300mm

Part No	Part name	Aluminum	Cast steel	Stainless steel	Stainless steel
1	Body	B26 -319.F	A216-WCB	SS304	SS316
2	Stub bolt	SS303	SS304	SS304	SS316
3	Gasket	Graphite	Graphite	Graphite	Graphite
4	Nut & washer	SS304	SS304	SS304	SS316
5	Fire resistant core shell	B26 -319.F	A216 WCB	SS304	SS316
6	Fire resistant net	SS304	SS304	SS304	SS316
7	Element plate	SS304	SS304	SS304	SS316
8	Nut & washer	SS304	SS304	SS304	SS316
9	Stub	SS304	SS304	SS304	SS316



SIZE	DN	D	D1	d	C	f	N-ØL
2”	50	150	120.5	92	19.5	2	4- ø18
3”	80	190	152.5	127	24	2	4- ø18
4”	100	230	190.5	157.5	24	2	8- ø18
6”	150	280	241.5	216	25.5	2	8- ø22
8”	200	345	298.5	270	29	2	8- ø22
10”	250	405	362	324	30.5	2	12- ø26
12”	300	485	432	381	32	2	12- ø26

DESIGNED BY **HITEK PETROLEUM EQUIPMENT CO., LTD**

End – line flame arrester

Figure: HITEK - TFA

According to API 2000 code, BS7244, the TFA is designed, manufactured and tested by HITEK
Model BV series type, is mounted on the end of a vent pipe from the tank. Vapors are allowed to escape into the atmosphere and air can be drawn into the tank through the flame element. The flame arrester consists of a spiral wound and crimped bank element. The flame arrester is installed where it is not necessary to conserve vapor losses but low flash point solvent liquid must be protected against fire and explosion from exterior ignition sources.

All flame arresters are bi-directional and the installation on a tank or piping system depends to a great extent on the design of the system. The Model TFA series is recommended for vertical installation on roof of tank or venting to atmosphere

Product name: End line flame arrester

Model: TFAA (Aluminum)

TFAC (Carbon steel)

TFAS (SS304/SS316/SS316L)

Internal: SS304

Element: SS304/SS316/SS316L

Design standard: API 2000

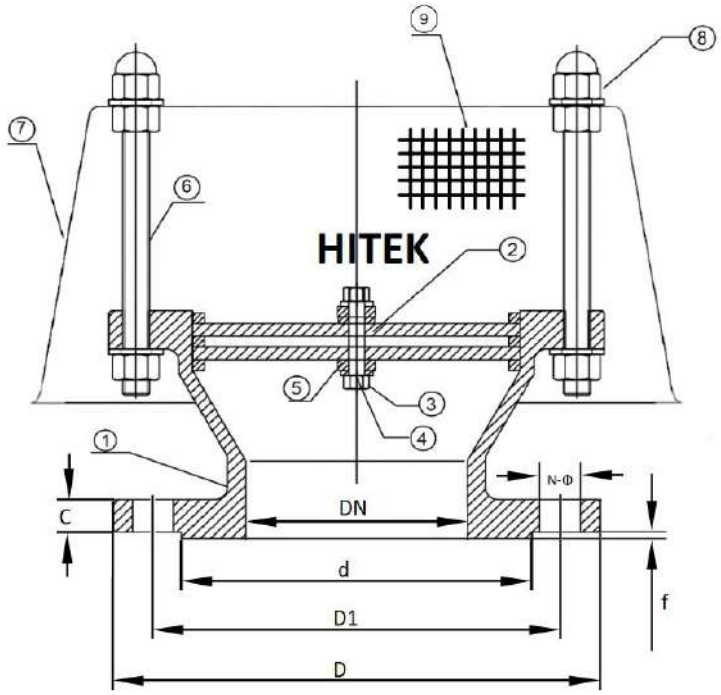
Type: Explosion flame arrester

Flame cell (Element): Group IIA or (IIB/IIC)

Flange standard: ASME B16.6(or requested by JIS/DIN)

Size 50mm – 300mm

Part No	Part name	Aluminum	Cast steel	Stainless steel	Stainless steel
1	Body	B26 -319.F	A216-WCB	SS304	SS316
2	Flame element	SS304/SS316	SS304/SS316	SS304/SS316	SS304/SS316
3	Element ring	PTFE	PTFE	PTFE	PTFE
4	Guide rod	SS304	SS304	SS304	SS316
5	Blot & gasket	SS304	SS304	SS304	SS316
6	Stub bolt	SS304	SS304	SS304	SS316
7	Cap	SS304	SS304	SS304	SS316
8	Bolt	SS304	SS304	SS304	SS316
9	Dust screen	SS304	SS304	SS304	SS316



SIZE	DN	D	D1	d	C	f	N-ØL
2”	50	150	120.5	92	19.5	2	4- ø18
3”	80	190	152.5	127	24	2	4- ø18
4”	100	230	190.5	157.5	24	2	8- ø18
6”	150	280	241.5	216	25.5	2	8- ø22
8”	200	345	298.5	270	29	2	8- ø22
10”	250	405	362	324	30.5	2	12- ø26
12”	300	485	432	381	32	2	12- ø26

DESIGNED BY **HITEK PETROLEUM EQUIPMENT CO., LTD**

End – line flame arrester

Figure: HITEK - LFA

According to API 2000 code, BS7244, the LFA is designed, manufactured and tested by HITEK
Model BV series type is mounted on the end of a vent pipe from the tank. Vapors are allowed to escape into the atmosphere and air can be drawn into the tank through the flame element. The flame arrester consists of a spiral wound and crimped bank element. The flame arrester is installed where it is not necessary to conserve vapor losses but low flash point solvent liquid must be protected against fire and explosion from exterior ignition sources.

All flame arresters are bi-directional and the installation on a tank or piping system depends to a great extent on the design of the system. The Model LFA series is recommended for vertical installation on roof of tank or venting to atmosphere

Product name: End line flame arrester

Model: LFAA (Aluminum)

LFAC (Carbon steel)

LFAS (SS304/SS316/SS316L)

Internal: SS304

Element: SS304/SS316/SS316L

Design standard: API 2000

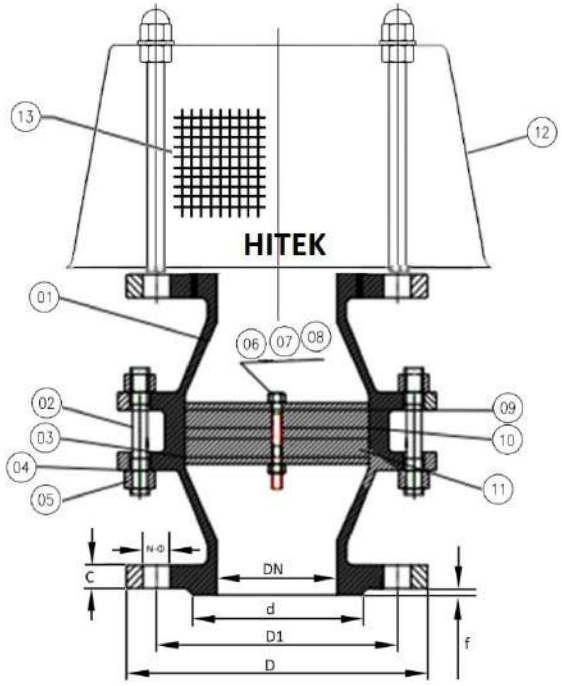
Type: Explosion flame arrester

Flame cell (Element): Group IIA or (IIB/IIC)

Flange standard: ASME B16.6(or requested by JIS/DIN)

Size 50mm – 300mm

Part No	Part name	Aluminum	Cast steel	Stainless steel	Stainless steel
1	Body	B26 -319.F	A216-WCB	SS304	SS316
2	Stub bolt	SS304	SS304	SS304	SS316
3	Gasket	PTFE	PTFE	PTFE	PTFE
4	Washer	SS304	SS304	SS304	SS316
5	Nut	SS304	SS304	SS304	SS316
6	Bolt	SS304	SS304	SS304	SS316
7	Nut	SS304	SS304	SS304	SS316
8	Washer	SS304	SS304	SS304	SS316
9	Flame case	B26 -319.F	A216 WCB	SS304	SS316
10	Flame platen	PTFE	PTFE	PTFE	PTFE
11	Flame element	SS304	SS304	SS304	SS316
12	Cap	SS304	SS304	SS304	SS316
13	Dust screen	SS304	SS304	SS304	SS316



SIZE	DN	D	D1	d	C	f	N-ØL
2”	50	150	120.5	92	19.5	2	4- ø18
3”	80	190	152.5	127	24	2	4- ø18
4”	100	230	190.5	157.5	24	2	8- ø18
6”	150	280	241.5	216	25.5	2	8- ø22
8”	200	345	298.5	270	29	2	8- ø22
10”	250	405	362	324	30.5	2	12- ø26
12”	300	485	432	381	32	2	12- ø26

DESIGNED BY **HITEK PETROLEUM EQUIPMENT CO., LTD**

Emergency vent

Figure: HITEK - HEV

According to API 2000 code, BS7244, the HEV is designed, manufactured and tested by HITEK
Model HEV series type is mounted on the end of a vent pipe from the tank. Emergency Relief Vents provide an emergency pressure relief opening for storage tanks when exposed to overpressures, Access Manways are non-sparking manhole covers which permit access to low pressure storage tanks and can provide emergency venting capacity in the event of fire. They are used extensively on bulk Liquid storage tanks, including floating roof tanks

.

Emergency vents are fitted to storage tanks to allow emergency flow due to the excessive venting requirement from a fire burning around a storage tank. Their use eliminates a costly tank rupture by providing emergency venting from abnormal internal pressure beyond the capability of the pressure relief vent. In the event of a fire the pallet lifts at a pre-determined pressure, thus supplying a large venting air

Product name: Emergency vent

Model: HEVC (A216 WCB)

HEVS (SS304/SS316/SS316L)

Design standard: API 2000

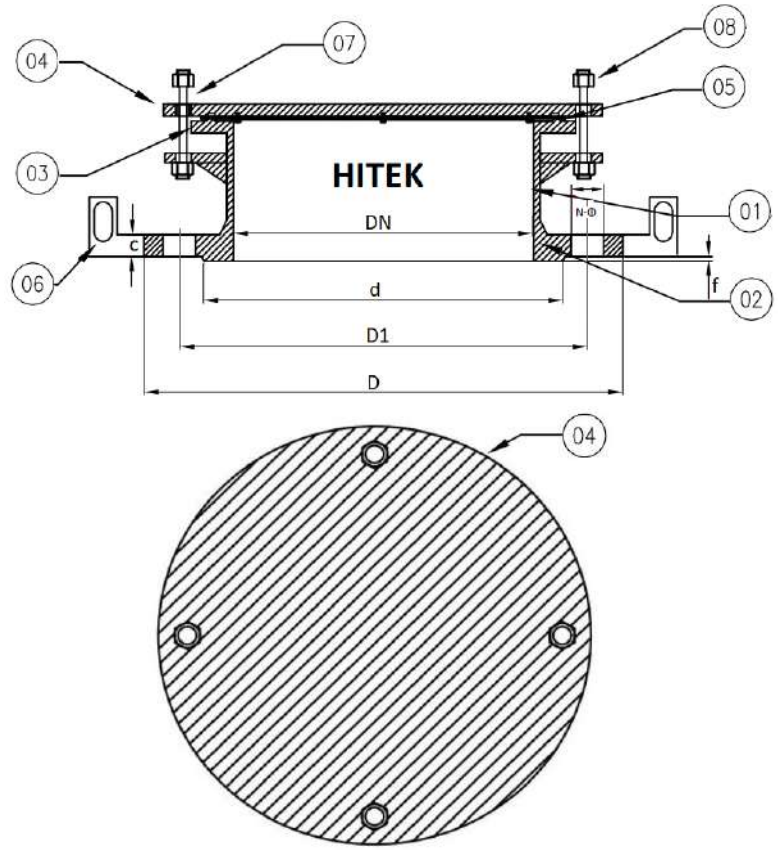
Type: Design to prevent loss and the cover to start opening when the tank pressure exceeds set pressure.

Flange standard: ASME B16.6(or requested by JIS/DIN)

Set pressure: max 700mmW.C

Size 200mm – 600mm

Part No	Part name	Cast steel	Stainless steel	Stainless steel
1	Body	A216-WCB	SS304	SS316
2	Flange	A216-WCB	SS304	SS316
3	Seat	SS304	SS304	SS316
4	Cover	A216-WCB	SS304	SS316
5	Diaphragm	FEP	FEP	FEP
6	Lifting ear	A216-WCB	SS304	SS316
7	Bolt	SS304	SS304	SS316
8	Nut	SS304	SS304	SS316



SIZE	DN	D	D1	d	C	f	N-ØL
8”	200	345	298.5	269.9	27	2	8-ø22
10”	250	405	362	323.8	28.6	2	12-ø25
12”	300	485	431.8	381	30.2	2	12-ø25
14”	350	535	476.3	412.8	33.4	2	12-ø29
16”	400	595	539.8	469.9	35	2	16-ø29
18”	450	635	577.9	533.4	38.1	2	16-ø32
20”	500	700	635	584.2	41.3	2	20-ø32
24”	600	815	749.3	692.2	46.1	2	20-ø35

DESIGNED BY **HITEK PETROLEUM EQUIPMENT CO., LTD**

Gauge hatch

Figure: HITEK - HGH

According to API 2000 code, BS7244, the HGH is designed, manufactured and tested by HITEK
Model HGH series type - Gauge Hatch is designed to provide easy access to storage tanks for gauging product level or temperature and product sampling. The standard hatch features a foot opening cover, flexible sealing member and tape gauge marker.

These gauge hatches are intended for use where the fire protection afforded by flame arresters is not considered necessary. They are available with either a non-locking or locking hatch. Gauge hatches are furnished with flat faced flanges. It is recommended that they be installed on mating flat face flanges with a full faced gasket.

Easy Inspection, Installation, and Maintenance, Special locking design available with a Knob Latch construct

Product name: Gauge hatch

Model: HGHA (Aluminum)

HGHC (Carbon steel)

HGHS (SS304/SS316/SS316L)

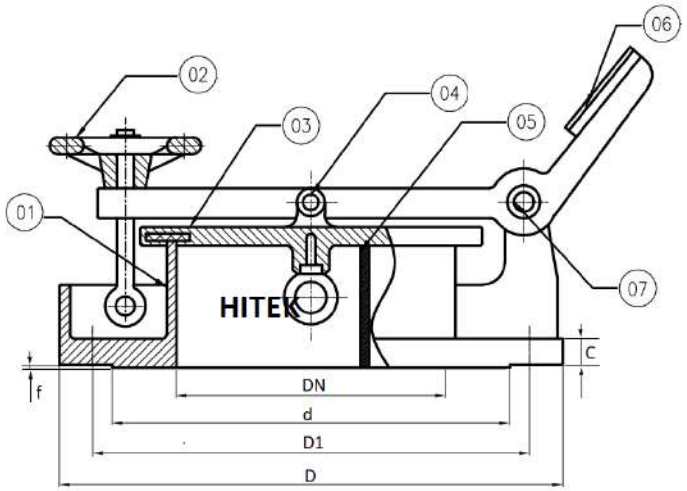
Design standard: API 2000

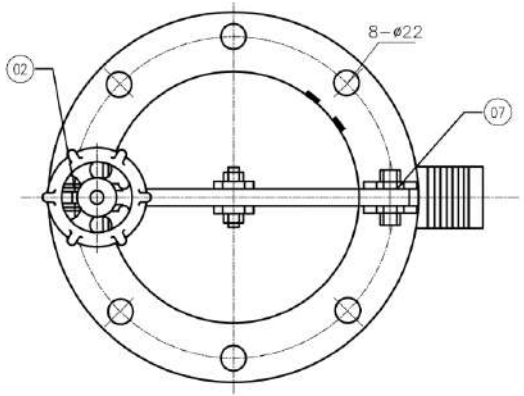
Flange standard: ASME B16.6

(or requested by JIS/DIN)

Size 50mm – 300mm

Part No	Part name	Aluminum	Cast steel	Stainless steel	Stainless steel
1	Body	Cast Alu	A216-WCB	SS304	SS316
2	Handwheel	WCB	WCB	SS304	SS316
3	Cover	Cast Alu	WCB	SS304	SS304
4	Eye-bolt	SS304	WCB	SS304	SS316
5	Measurement groove	Copper	Copper	SS304	SS316
6	Pedal	WCB	WCB	SS304	SS316
7	Eye-bolt	WCB	WCB	SS304	SS316





SIZE	DN	D	D1	d	C	f	N-ØL
4”	100	230	190.5	157.5	24	2	8- ø18
6”	150	280	241.5	216	25.5	2	8- ø22
8”	200	345	298.5	270	29	2	8- ø22
10”	250	405	362	324	30.5	2	12- ø26
12”	300	485	432	381	32	2	12- ø26

DESIGNED BY **HITEK PETROLEUM EQUIPMENT CO., LTD**