

INTERCEPTOR[®] OR

*Safe Passive Flameless
Indoor Explosion Venting*



TIMELINE

00:00.000
Milliseconds

00:00.015
Milliseconds

00:00.025

00:00.055
Milliseconds

00:00.075
Milliseconds

00:00.090

00:00.125
Milliseconds

00:00.165
Milliseconds

00:00.200

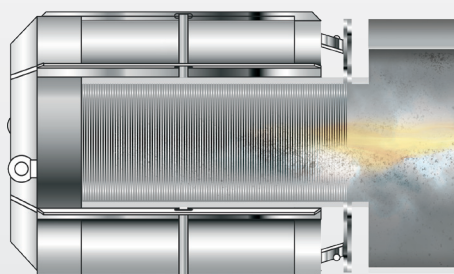
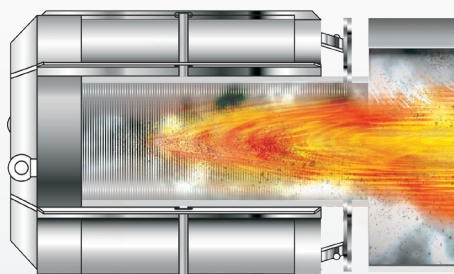
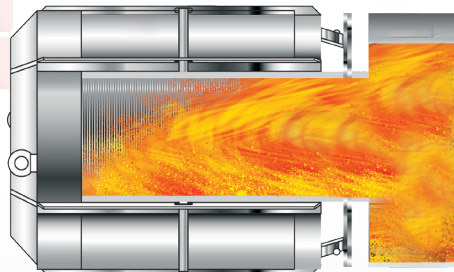
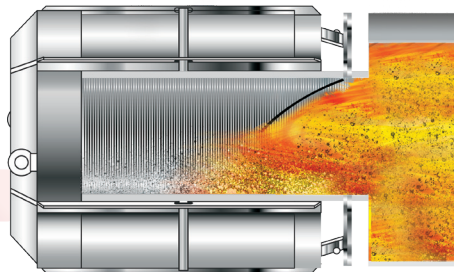
00:00.275
Milliseconds

00:00.350
Milliseconds

00:00.425
Milliseconds

00:00.500

**TIMELINE OF PHYSICS
AT WORK**



HOW THE INTERCEPTOR-QR WORKS

The **INTERCEPTOR®-QR®** is comprised of two parts, an explosion vent and a quencher. The quencher is constructed of multiple layers of stainless steel mesh supported by an exoskeleton. Ignition inside a protected vessel causes pressure to build rapidly. The explosion vent opens to relieve this pressure. Burning dust, unburned dust, flame, and hot gases all exit through the vent opening exactly in the same manner as would occur in a conventional explosion vent.

Unlike venting to atmosphere, however, the quencher takes over to trap the dust within the mesh and absorb the heat from the flame and hot gases. The mesh then acts as a heat sink to quench the temperature and break the chain reaction, effectively interrupting the explosion in mid-stream. As the hot gases contract, the **INTERCEPTOR®-QR®** acts as a vacuum breaker by allowing free entry of cool air. During a dust explosion, the flameball is at least 1500° Celsius, while the surface temperature of the **INTERCEPTOR®-QR®** typically stays under 100° Celsius. Dust and flame are completely contained, making the **INTERCEPTOR®-QR®** safe for indoor use in manned spaces without the need for ducts.

Call for more info! 561 • 694 • 9588

Safe Passive Flameless Indoor Explosion Venting

Features and Benefits:

Flame Arresting.

No flame escapes, providing a safe operating environment for personnel. Eliminates the possibility of a secondary ignition and subsequent explosion.

Dust Retention.

Retains process product, removing the possibility of potentially toxic product entering the environment.

Negligible Temperature and Pressure Rise.

Neither personnel nor the surrounding environment are adversely affected.

Simple Economic Installation.

Single flange connection.

Low Maintenance.

Minimal maintenance required.

Stainless Steel Construction.

Corrosion resistant and suitable for food processing applications.

Process Friendly.

If exercised, INTERCEPTOR®-OR® will not contaminate the customer process, eliminating extensive clean up.

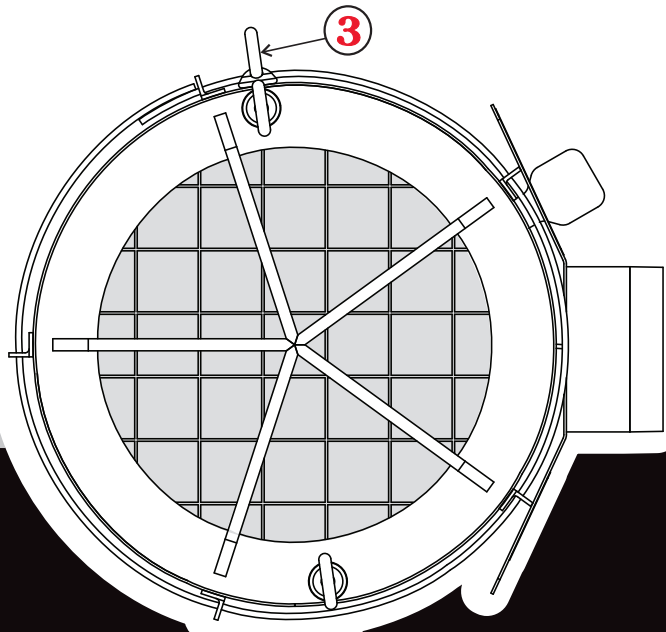
Economic Refurbishment if Exercised.

INTERCEPTOR®-OR® can quickly be refurbished and re-certified for use.

CV Technology Application Photographs

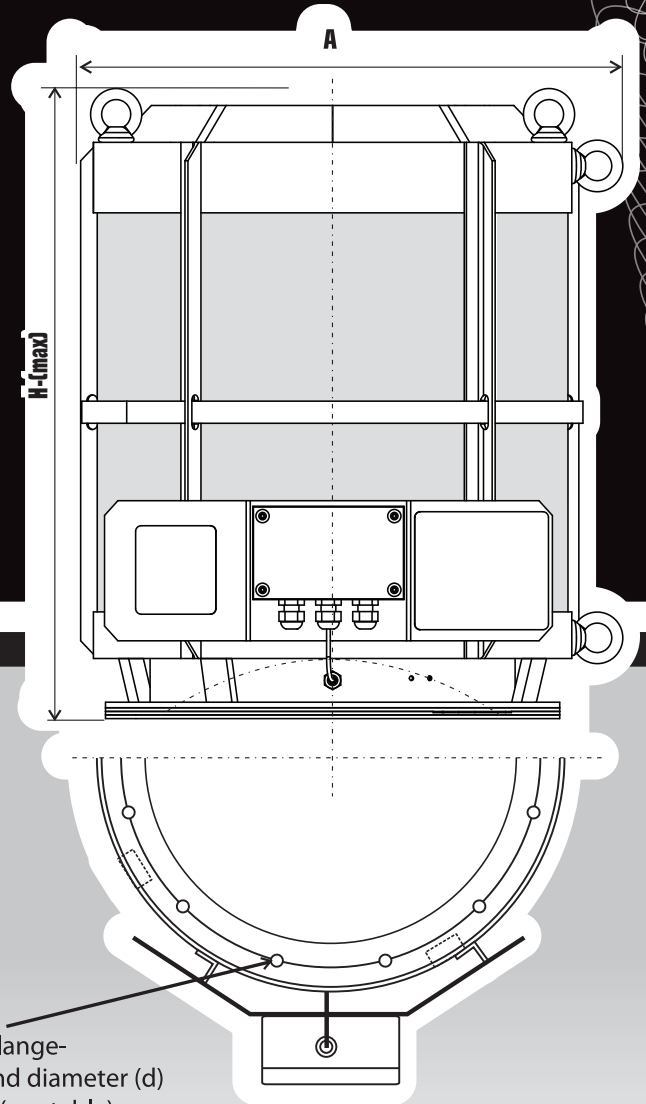
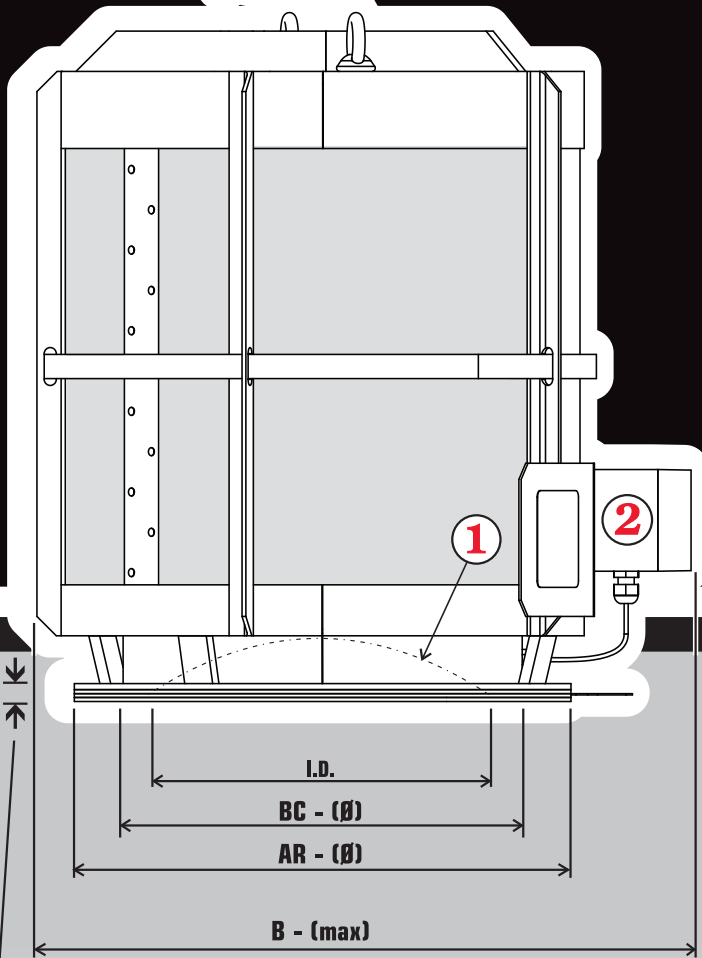


INTERCEPTOR® - OR® Weights and Dimensions



Type	I.D. in	H in	A in	B in	AR in	E in	BC in	d in	n #	wt. lbs
CV-Q-8	8.11	22.0	14.2	17.0	10.6	0.56	9.57	0.33	8	60
CV-Q-12	12.11	22.0	18.5	21.0	15.4	0.56	13.98	0.43	12	75
CV-Q-16	15.41	37.0	23.0	25.0	19.7	0.56	17.44	0.51	16	140
CV-Q-20	19.41	37.0	26.5	29.0	23.6	0.56	21.42	0.51	20	180
CV-Q-24	23.41	55.0	32.0	34.0	27.6	0.63	25.43	0.51	20	316
CV-Q-28	27.41	75.0	35.0	37.0	31.5	0.63	29.60	0.51	28	493
CV-Q-32	31.41	87.0	39.0	42.0	35.4	0.63	33.60	0.51	28	606

- 1** Rupture disc with integrated signaling unit
- 2** INTERCEPTOR® - OR® SRE/FSC electronics with operating and alarm signal
- 3** Lifting eyes 4 X 0.70" I.D.



Note: Dimension E includes the Flange, Rupture Disc, and Gasket

Connection Flange-number (n) and diameter (d) of bore holes (see table)