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柴油机安全防爆产品供应商  
Diesel Engine Safety Products Supplier

Diesel engines are a potential source of ignition when used in areas where combustible gas, vapors or dusts may exist. The resulting conflagration can lead to catastrophic consequences for personnel, production and the environment.

当柴油机在可燃气体、蒸汽、粉尘存在的场所使用时就会变成一个潜在的着火源，由其引起的火灾对员工、产品及周围的环境会造成灾难性的破坏。

### Refinery explosion(15 killed, 180 injured) Texas, 2005

Official reports indicate the most likely ignition point was an idling diesel pickup truck. This truck was parked about 25 feet (7.6 m) from the blowdown drum, and several eyewitnesses reported seeing or hearing the truck's engine over-revving when the vapour cloud reached it.

Source: U.S. Chemical Safety & Hazard Investigation Board

2005年美国得克萨斯州炼油厂大爆炸，罪魁祸首就是一辆停在排污管的皮卡，由于吸入了可燃气体而无法安全停车，最终酿成15人死亡，180人受伤的惨剧。

信息来源：美国化学品安全与危害调查委员会



Our air intake shutdown valve, a device designed to stop a diesel engine automatically and safely should it start to overspeed due to a combustible mixture being drawn into the engine intake.

我司研发出了进气切断阀来解决这种安全隐患，当柴油机吸入可燃混合气体或粉尘而引起超速失控时，该装置能够自动切断柴油机进气，从而实现柴油机安全停车。

Following the success of this product, We have subsequently developed a wide range of diesel engine safety equipment, such as spark arrester, fuel shutoff valve, etc...

随着进气切断阀产品的成功，我司又陆续开发除了一系列柴油机安全设备，比如火星熄灭器，燃油切断阀等等。

### China explosion-proof standards 中国防爆标准

At present, the major countries and regions in the world have issued the safety and explosion-proof standards for diesel engines working in explosion or potential explosion environment, which are enforced. The standards that have been issued in China now are as below :

目前，很多国家均出台了在爆炸或潜在爆炸环境中使用的柴油机安全防爆标准，且是强制执行的。我国现已发布的标准有：

- GB/T 20800-2016 General rules of explosion protect techniques of reciprocating internal combustion engines for explosive atmospheres  
GB/T 20800-2016 爆炸性环境用往复式内燃机防爆技术通则
- GB4556-2001 Reciprocating internal combustion engines – Fire protection  
GB4556-2001 往复式内燃机防火要求
- GB20651.2-2014 Reciprocating internal combustion engines – safety requirements  
GB20651.2-2014 往复式内燃机安全要求
- MT990-2006 The general technical condition of the flameproof diesel engine for the mine  
MT990-2006 矿用防爆柴油机通用技术条件
- SY/T 6728-2008 Petroleum and nature gas industry - diesel/ nature gas dual fuel engine  
SY/T 6728-2008 石油天然气工业 – 柴油/天然气双燃料发动机规范
- SY/T5030-2013 Petroleum and nature gas industry – diesel engine  
SY/T5030-2013 石油天然气工业 – 柴油机规范

### Application Market 应用领域

- |                           |                            |                               |                                |
|---------------------------|----------------------------|-------------------------------|--------------------------------|
| ● Fire trucks<br>消防车      | ● Fracturing truck<br>压裂车  | ● Fork lift<br>叉车             | ● Light Towers<br>灯塔           |
| ● Generator sets<br>发电机组  | ● Mining machinery<br>矿用设备 | ● Refueling truck<br>加油车      | ● Fuel tankers<br>油罐车          |
| ● Air Compressor<br>空气压缩机 | ● Marine engines<br>船用发动机  | ● Cementing equipment<br>固井设备 | ● Nature gas engines<br>天然气发动机 |

## E Series shutdown valves

### E系列切断阀

Operate independently of any external power or signal input to give automatic closure on engine overspeed. For enhanced safety valves can be supplied fitted a mechanical cable for a remote manually actuated shutdown. Smaller models in this valve range are optionally available combined with an engine air cleaner to facilitate installation.

运行时不需要任何外接电源和输入信号，当发动机超速时自动停车。为了增强安全，该系列切断阀可选配手动控制装置，以便进行远程停车。对于比较小的切断阀，可以和发动机空滤器集成在一起。

#### Key features 主要特点

- Can provide the hose adaptor to fit into the engine air intake hose
- Compact lightweight but rugged construction
- Easily serviced
- Overspeed trip setting easily adjusted
- Automatic reset after engine has shutdown
- Metal to metal seals with long life
- Size available to suit a wide range of small to medium sized engines
- Suitable for fitting to either naturally aspirated or turbocharged engines
- 可提供柴油机进气软管接头
- 结构紧凑轻便，坚固耐用
- 维修方便
- 超速速度值方便调整
- 发动机停机后自动复位
- 金属和金属密封，使用寿命长
- 适配发动机功率范围广
- 适用于自然吸气和涡轮增压发动机

#### E-Series E系列

Available in sizes to suit engine ratings from 4hp to 600hp with hose adaptors from 25mm to 229mm.

适配发动机功率从4马力到600马力，配套管接头直径从25毫米到229毫米。



#### E-M Series E-M系列

As E valve but including a cable operated manual shutdown feature - emergency pull to stop T handle.

在E系列基本上配置一根远程控制手柄，紧急情况下直接拉动T型手柄停车。



#### E-F/E-FM Series E-F/E-FM系列

Combined E valve and engine air cleaner. E-FM valves include a cable operated manual shutdown feature.

该系列切断阀和空气过滤器集成在一起，并且可配置远程控制手柄。



#### E-T Series E-T系列

Automatic engine overspeed shutdown valves combined with manual closure, oil or air actuated closure and integrated flame trap housing.

E系列基本上配置远程手动控制开关，同时配置压力失压保护装置，即油压或气压低于设定值时会自动关闭发动机，而且该系列切断阀可以做成隔爆式。



## F Series shutdown valves

### F系列切断阀

Butterfly type valves giving low air flow restriction for compatibility with emission-controlled engines. Multiple actuation options available including electrical, pneumatic and/or mechanical. The required overspeed shutdown signal maybe generated for example by an electronic speed switch (contact us for details) or from the engine management system. We also advise on other aspects of shut down control system design.

蝶式切断阀进气阻力小，适用于对排放有要求的柴油机。有多种执行器可供选择，包括电控式、气控式和机械控制式。所需要的停车信号可以由电子速度开关提供（我们可以提供），也可以由发动机管理系统直接输入，我们还可以协助设计发动机停车系统。

### Key features 主要特点

- Models to suit a wide range of small to medium sized engines
  - Can provide hose adaptors to fit into the engine air intake hose
  - Flange mounting option available subject to prior investigation
  - Compact lightweight but rugged construction
  - Electrical enclosure to IP66
  - Built in microswitch option to enable valve status signal
  - May be fitted to either naturally aspirated or turbocharged engines
  - Corrosion resistant hard anodized PTFE coated body with stainless steel parts
  - Metal to metal valve seal when closed designed for low friction and long life
- 型号适用发动机范围广
  - 可提供柴油机进气软管接头
  - 可选配法兰连接
  - 结构紧凑轻便，坚固耐用
  - 电气零部件防尘防水等级IP66
  - 可选配微型开关用来显示阀门状态
  - 可配置于自然吸气和涡轮增压发动机
  - PTFE涂层+不锈钢零件，防腐效果好
  - 金属和金属密封，摩擦力小，使用寿命长

### FM1-Series FM1系列

Basic manual push button shutdown and lever reset. Also available with a remote cable operated emergency pull to stop T handle.

F系列基础型，手动按压紧急停车按钮实现停车，旋转手动杆进行复位。可选配远程停车手动装置，通过拉动手柄实现停车。



### FS1-Series FS1系列

Powered to close types with manual reset to the open [run] position. A cable operated manual reset option is available as is a valve mounted manual shutdown button and cable operated manual shutdown button.

通电关闭，发动机停车后需手动复位（打开状态），可选配远程手动停车和复位装置。



### FS2-Series FS2系列

Powered to close types with automatic reset to the open [run] position after engine shutdown. Requires a relay to switch between the pull and hold coils as well as a timer circuit.

通电关闭，发动机停车后可以自动复位（打开状态）。该系列切断阀需配置一个继电器实现保持电路和工作电路的切换。



### FS3-Series FS3系列

Power to open [failsafe] types. Sprung loaded return to the closed [stop] position when not powered. Requires a relay to switch between the pull and hold coils.

通电打开（故障安全型），断电时，切断阀在复位弹簧作用下关闭进气管路，让发动机安全停车。该系列切断阀需要一个继电器来实现保持电路和工作电路的切换。



### FS3-ATEX Series FS3-ATEX防爆系列

ATEX approved valve for flameproof engine applications power to open (failsafe) with spring return to closed position (stop) when not powered. Approved for operation in T4, Zone 1, Gas Group IIC and Zone 21, Conductive Dust Group IIIC hazardous areas.

该系列切断阀通过ATEX认证，通电打开（故障安全型），断电时，切断阀在复位弹簧作用下关闭进气管路，让发动机安全停车。可以在T4, 1区, IIC气体危险环境和21区, IIC粉尘危险环境使用。



### FP-Series FP系列

FP2 Series - Air pressure to close / Automatic reset.

FP2系列 / 通气关闭，自动复位。

FP3 Series - Air pressure to open / Spring to close (failsafe).

FP3系列 / 通气打开，断气时，切断阀在复位弹簧作用下自动复位（故障安全型）。



## Exhaust spark arrestor 火星熄灭器

An exhaust spark arrestor is a key safety requirement for diesel engine applied in hazardous areas, virtually all legislation with respect to the use of diesel engines in hazardous areas includes a mandatory requirement to fit an exhaust spark arrestor.

火星熄灭器是危险环境中使用的柴油机的关键安全零部件，几乎所有的关于危险区域使用的柴油机法规，都会要求在其排气系统上安装火星熄灭器。

### Key features主要特点

- Highly efficient centrifugal design  
离心式设计，效率高
- Meet EN1834 requirements and can provide ATEX certificate  
满足EN1834防爆标准，可以提供ATEX防爆认证
- Wide product range to suit 1-750hp diesel engines  
适配功率范围广，覆盖1-750马力柴油机
- End pipes compatible with standard exhaust pipe sizes/clamps  
出口适配标准排气管，并配套连接卡箍
- Manufactured in stainless steel or a lower cost stainless steel/carbon steel combination  
不锈钢材质或基于成本考虑可选配部分碳钢材质





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**亚洲公司**  
Asia Company

 9-2# Block No.132 Guangyuan Road, Changzhou City, Jiangsu Province, 213144, China


 +86 (0)519 8666 9098

 sales@enkair.com

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**欧洲公司**  
Europe Company

 Unit 1C Chalwyn Industrial Estate, Parkstone, Poole, Dorset, BH12 4PE, United Kingdom

 +44 (0)1202 734 656

 jerrysun@wyndhampage.com

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