

# CHALWYN

**Diesel Engine Safety Solutions**



**Automatic Engine Overspeed  
Shut Down Valves - D Series**

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# Automatic Engine Overspeed Shut Down Valves

## Applications



- Cranes
- Fork Lift Trucks
- Aerial Platforms
- Air Compressors
- Water Pumps
- Mining Machinery
- Fuel Tankers
- Jetting Pumps
- Diesel Mowers
- Vehicles
- Vacuum Trucks
- Hydraulic Power Packs
- Light Towers
- Welding Sets
- Wire Line Units
- Mud Pumps
- Marine Engines
- Aircraft Refuelling Trucks
- Generator Sets
- Seismic Testing Trucks
- Diggers & Back Hoes
- Oil Pollution Skimmers



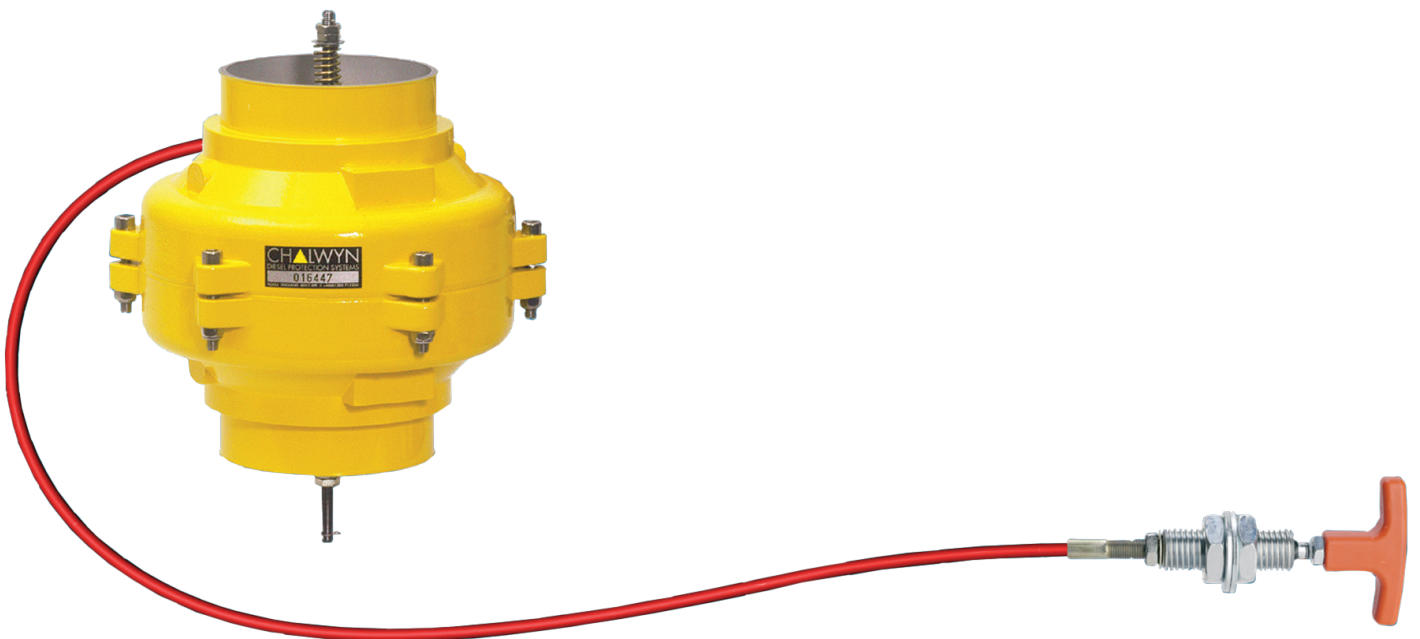
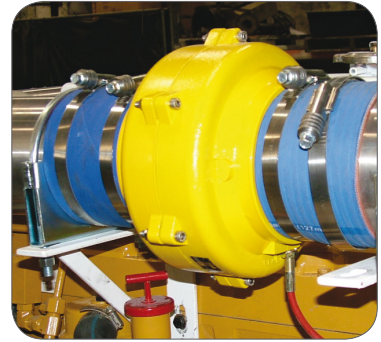
Basic D model

# Prevent detonation catastrophe by fitting a reliable valve

If flammable gas or vapor is drawn into the air intake of a diesel engine it acts as an additional uncontrolled fuel supply. This can result in uncontrolled engine runaway and overspeed followed by dangerous mechanical failure or flash back through the intake and the ignition of the surrounding atmosphere.

These conditions can commonly occur within a petrochemical refinery, on or near oil and gas well exploration and production. When a diesel engine consumes this flammable mixture, it is unlikely to be stopped by closing down the normal diesel fuel supply. The only guaranteed way to stop the engine and avoid the potential effects of overspeed is by the action of an air intake shutdown valve.

The original Chalwyn 'D' SERIES air intake valves were designed to automatically shut down if the engine overspeeds for any reason. After extensive testing by Esso (Exxon) demonstrated its effectiveness, the 'D' series entered full production in 1972. The continuing success of this product has led to the wide range of sizes and optional features now available.

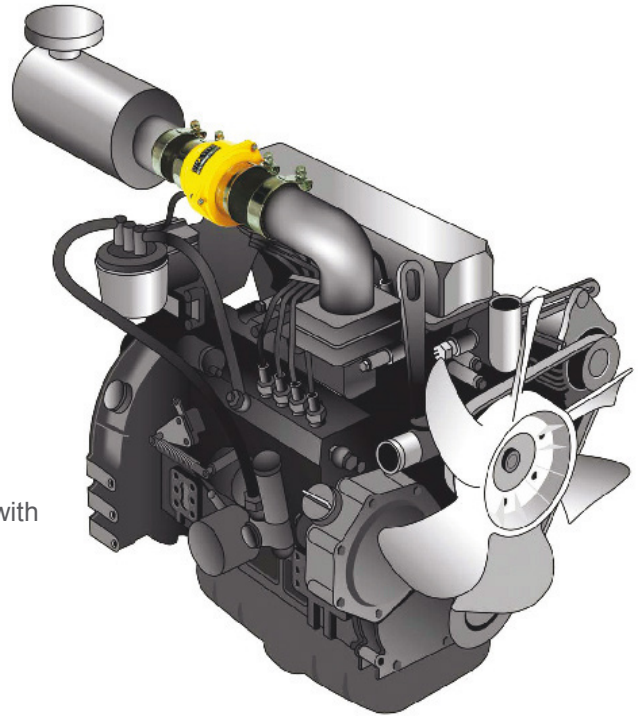


# Automatic Overspeed Valve D Series

The Chalwyn type 'D' series valve range has become universally recognized as the first choice for reliable diesel engine overspeed protection. This self-contained valve works by air flow, which ensures reliable automatic shutdown if operating speed exceeds a pre-set limit.

## Features

- Automatically stops the engine before excess speed causes damage or flashback
- Valve resets once the engine has stopped, so the engine is ready for re-starting
- No speed signal sensing required
- No external power source required
- Wide range of sizes available
- Easy to fit by pushing into existing intake hose and securing with standard clips (clamps)
- Easy to adjust speed setting using standard tools
- Tamper resistant to speed adjuster position
- No need to run engine beyond normal speed range during valve adjustment
- Anti-flutter mechanism fitted to valves for small engines to give stable performance
- Can be used in combination with Chalwyn FSX-200 fuel shutdown valve for simultaneous automatic air and fuel shutdown
- Integral air filter options available for some smaller models
- Approved by oil companies internationally



### Basic D models

see publications

CE209 (Mini range)

CE246 (Deutz flanged)

CE231 (D200)

CE204 (Bendix range)

CE205 (Spindle range)



### DF models with integral air cleaner

see publications

CE209 (Mini range)

CE206 (Bendix range)

# Auto-Manual Overspeed Valve Types D-AM and DF-AM

## Features

- Automatic valves with the addition of manual shutdown via a cable and pull handle
- Meets US Bureau of Ocean Energy Management (BOEM) regulations for both continuously monitored and remote unattended engine operations
- Meets all Canadian Provinces requirements for Positive Air Shutoff
- The manual shutdown does not affect the automatic overspeed protection feature
- Secure 'T' pull handle ensures complete and easy manual testing of valve function
- Choice of unique manual pull handle designs
- Choice of cable lengths available



### D-AM models with remote manual stop

see publications

CE209 (Mini range)

CE207 (Bendix range)

CE210 (Spindle range)

CE231 (D200)

CE246 (Deutz powered)

LARGER MODELS USE  
DIFFERENT LEVER

### DF-AM models with remote manual stop and an integral air cleaner

see publications

CE209 (Mini range)

CE206 (Bendix range)

CE207 (Bendix range)



PULL STOP →

# Air intake valves with manual shut down

combined with automatic shut down on overspeed or loss of an oil (or air) pressure signal - Types TMZ and D-AMZ

## Features

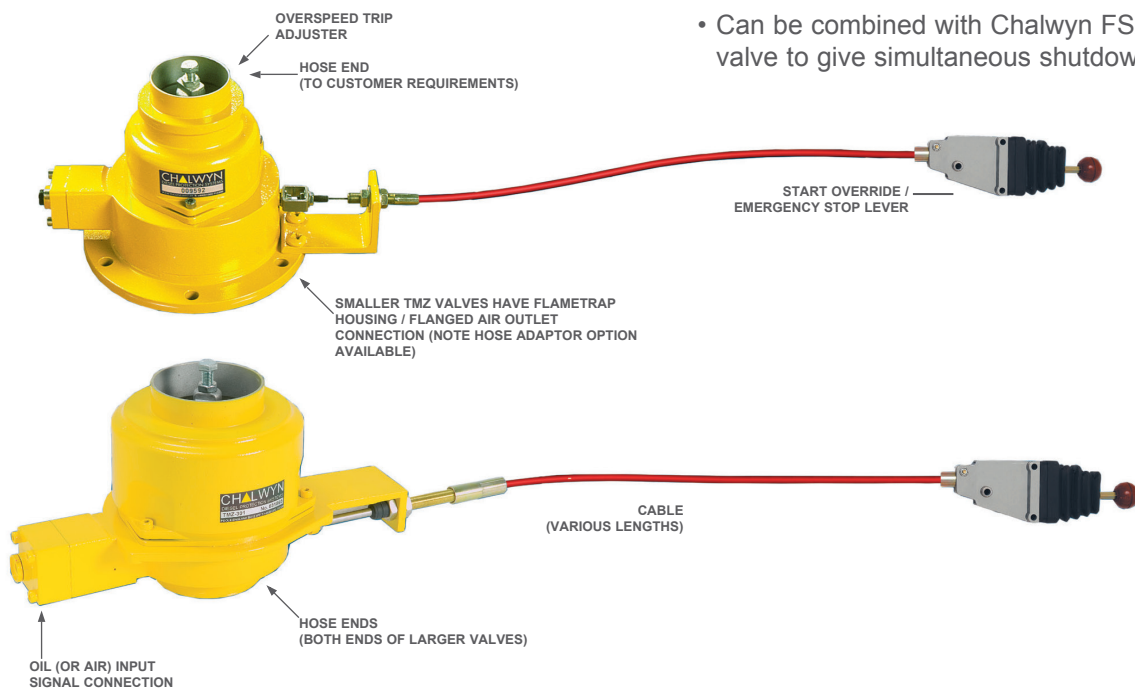
- Cost effective valve combining automatic overspeed shutdown with shutdown on loss of oil (or air) pressure and manual shut down
- Can be combined with AMOT mechanical temperature sensors to also give shut down on high temperatures
- Easy to set overspeed trip point / requires no speed signal input
- Optional ZMZ zinc body versions for Group 1 mining applications
- Suitable for Zones 1 and 2 and US BOEM offshore installations including air operated ESD systems (loss of air pressure to stop)

### TMZ valves

see publication CE208

- TMZ range suitable for engine ratings between 7.5kw (10hp) and 149kw\* (200hp) and intake pipe bores between 40mm (1 9/16 inches) to 108mm (4 1/4 inches)

- Can be combined with Chalwyn FSX-200 fuel shutdown valve to give simultaneous shutdown of fuel and air



### D-AMZ valves

see publications CE243 and CE231

- D-AMZ range suitable for engine ratings from 80kw (107hp) up to 605kw (805hp) and engine air intake hose bores from 76mm (3 inches) to 229mm (9 inches)

# Air intake valves with automatic shut down on engine overspeed or on application of an air pressure signal

Types TPZ, D-AP and D-AMP

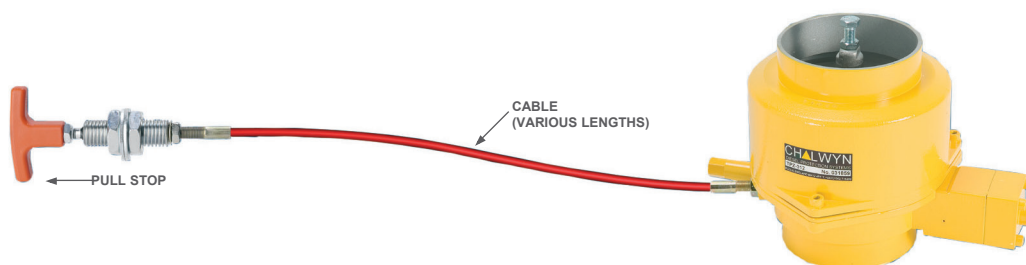
## Features

- Simple cost effective valves combining automatic overspeed shut down with air pressure operated shut down
- No speed signal or power input needed
- Light weight construction - easy to install and adjust - low maintenance
- Automatic reset after engine shuts down and air pressure signal removed
- Suitable for Zone 2 and US BOEM offshore installations including air operated ESD systems (air pressure applied to stop)

### TPZ models with manual shut down

see publication CE237

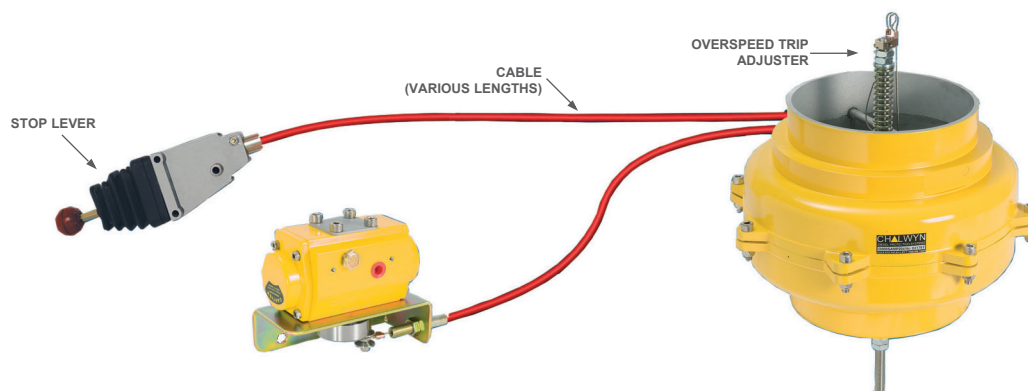
- TPZ range suitable for engine ratings between 7.5kw (10hp) and 149kw\* (200hp) and intake pipe bores between 40mm (1 9/16 inches) to 108mm (4 1/4 inches)
- Combines with Chalwyn FSX-200 fuel shut down valve to give simultaneous shut down of intake air and diesel fuel



### D-AMP models with manual stop

see publications  
CE231 and CE238

- D-AP/ D-AMP valves can be selected to suit engine ratings from 80kw (107hp) up to 605kw (805hp) and engine air intake hose bores from 76mm (3 inches) to 229mm (9 inches)



Chalwyn has a history of more than 40 years in manufacturing engine safety shut down valves to support the oil and gas industry.

In 2008 Chalwyn was acquired by AMOT, a global manufacturer of valves, controls and monitoring solutions for the protection of engines, compressors, turbines and heavy equipment. AMOT has served a wide variety of markets since 1948 including industrial, marine, oil and gas, power generation and transportation.

Together, the AMOT, Roda Deaco and Chalwyn brands offer an extensive family of engine safety solutions.

To find your nearest distributor for Diesel Engine Safety Solutions, please visit the home page of our website and select 'FIND LOCAL DISTRIBUTOR'.



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