



## MINING CYCLONE SERIES

Calyco are Australian coal mining and related industry suppliers of gravity separation cyclone wear protection solutions as well as other mining equipment supplies.

Calyco custom design and build industrial cyclones. We supply coal processing cyclone equipment, mining cyclone wear protection systems and material handling systems widely used in the mining of coal, railway, port, power, iron & steel and cement industries.





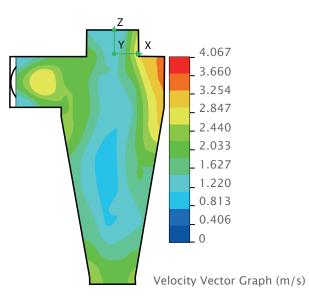
## 2 MINING CYCLONE SERIES

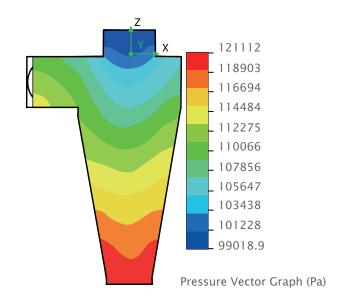
## **Pressurised Two-Product DM Cyclone**

Pressurised two-product DM cyclones are high efficiency equipment for separation of raw coals in coal preparation industry. They're specially designed to minimise the vortex and abrasion and have features such as high top limit, excellent separation efficiency and great handling capacity.



#### • Medium Flow Analysis





#### • Design of Feed Opening

The special structure of the feed opening with round front and square back section allows instant speed-up of the feed passing through it to meet the requirement on high feed rate.

Fixed ceramic tiles for the feed opening provide extremely good impact resistance.





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#### Feeding

Involute feeding is applied to the cyclones. A great deal of simulation and data analysis shows that involute feed can reduce turbulence generated by abrupt diffusion of the feed at the inlet to allow of smooth and stable flow inside the cyclones for better separation performance.



#### • Small Cone and Underflow

Small cone and underflow, as very easy-to-wear positions, are lined with 18mm silicon carbide ceramics.



Model	Feed Size (mm)	Feed Pressure (MPa)	Solids Handling Capacity (t/h)	Medium Circulating Volume (m3/h)
CAL-FZJ1450-20°	≤105	0.10-0.20	500-650	1650-1900
CAL-FZJ1300-20°	≤95	0.10-0.20	450-550	1400-1650
CAL-FZJ1220-20°	≤85	0.10-0.20	450-525	1250-1400
CAL-FZJ1150-20°	≤80	0.08-0.18	350-425	1100-1250
CAL-FZJ1015-20°	≤75	0.08-0.18	300-375	950-1100
CAL-FZJ900-20°	≤70	0.08-0.18	225-300	800-950
CAL-FZJ840-20°	≤65	0.05-0.10	175-250	650-800
CAL-FZJ760-20°	≤50	0.05-0.10	125-200	400-650
CAL-FZJ675-20°	≤40	0.05-0.10	75-150	250-400

# Hydraulic Classifying Cyclone and Thickening-Classifying Cyclone Cluster

In a coal preparation plant, hydraulic classifying cyclones are mainly used for classifying and thickening before flotation and the treatment for coal slurry; and the materials are separated due to their different moving speeds in water. Cyclones of different specifications allow wide applications for coals with different quality, sizes and concentrations.



#### • Hydraulic Classifying Cyclone Series

Model	Handling Capacity (m3/h)	Cut Size (mm)	Feed Pressure (MPa)
CAL-FX660-20°	240-350	0.30-0.50	0.04-0.15
CAL-FX450-20°	110-230	0.25-0.35	0.04-0.15
CAL-FX380-20°	80-175	0.15-0.30	0.04-0.15
CAL-FX350-20°	70-150	0.15-0.25	0.04-0.15
CAL-FX250-20°	40-70	0.05-0.15	0.04-0.15

excellent option for heavy wear.

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#### • Thickening-Classifying Cyclone Cluster

A thickening-classifying cyclone cluster integrates several classifying cyclones but fitted with one common feed inlet in the centre and one common product discharge. Depending on their different handling capacities, cyclone clusters can be arranged in pairs or in groups for mineral thickening and classifying, separation of coal slurry and other wide applications.





Model	Handling Capacity (m3/h)	Cut Size (mm)	Feed Pressure (MPa)	Qty. of Cyclones
CAL-FX600-20°	300-660	0.30-0.50	0.04-0.15	3-8
CAL-FX450-20°	110-230	0.25-0.35	0.04-0.15	3-8
CAL-FX380-20°	80-175	0.15-0.30	0.04-0.15	3-12
CAL-FX350-20°	70-150	0.15-0.25	0.04-0.15	3-18
CAL-FX250-20°	40-70	0.05-0.15	0.04-0.15	3-18

## **Spare Parts**

Calyco supply mining cyclone spare parts/ components Australia-wide.



Valve



Pressure Gauge



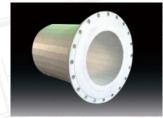
Cones



PU Underflow



Underflow



Overflow

#### **Mining Products**

- Wear Protection
  Equipment & Machinery
  Drilling and Blasting
  Engineering Plastics
  - Consumables Safety