

THE WORLD'S BEST CYCLONE

PRODUCT: HURRICLON® ISSUE DATE: March 2006

THE TECHNICAL MASTERPIECE FOR EFFICIENCY INCREASE AND REDUCTION OF ENERGY CONSUMPTION

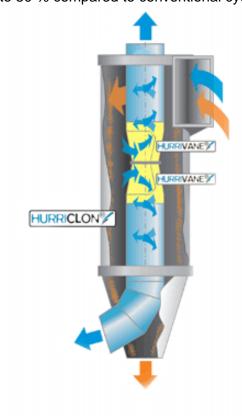
Optimization becomes reality with the worldwide patented high performance cyclone HURRICLON[®] 3.

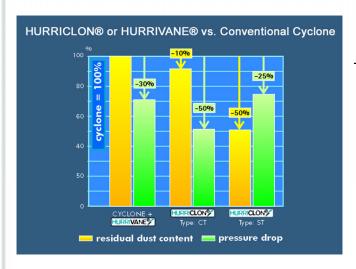
This cyclone of the 3rd generation is based on the technical superior characteristics of the double dip tube design combined with the integrated HURRIVANE[®] technology.

This combination improves efficiency & pressure drop by up to 50 % compared to conventional cyclones.

BENEFITS

- Reduction of pressure drop
- > Reduction of energy consumption
- Reduction of dust load to filter
- Reduction of fan wear
- Enhancement of bag life (due to lower frequency of purging)
- > EP Efficiency enhancement
- Fan power reduction or use of the total power of the fan to increase the volume flow for higher capacity utilization (increase of production)
- Reduction of space requirement and peripheral investment
- Better performance of plant





THE MOST IMPORTANT ADVANTAGES

- Best efficiency
- ▶ Best pressure drop reduction
- Less space requirement



EXAMPLES OF REALIZED PROJECTS

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Cartagena plant

COLCLINKER - COLOMBIA

Cartagena plant

SITUATION BEFORE:

Multi-cyclones

Total gas quantity: 100,000 Am³/h
Dust load: 8 g/Nm³
Residual dust: 680 mg/Nm³
Separation efficiency: 92 %

INSTALLED:

4 units HURRICLON® 1250 ST

REALIZED:

Residual dust: 167 mg/Nm³

Separation efficiency: 98 %

ESSENTIAL ADVANTAGE:

No filter after HURRICLON®

No reasonable wear in HURRICLON® and fan

after 4 years operation



Medellin plant

CEMENTOS RIOCLARO - COLOMBIA

Medellin plant

SITUATION BEFORE:

Multi-cyclones

Total gas quantity: 231,000 Am³/h
Residual dust: 550 kg/h
Separation efficiency: 80.3 %

INSTALLED:

6 units HURRICLON® 1600 ST

REALIZED:

Residual dust: 44 kg/h
Reduction of emission: 92 %
Separation efficiency: 99 %

ESSENTIAL ADVANTAGE:

Significant reduction of emission without installing a

Increase of clinker production:
15 t/d

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