



| | |
|--------------------|--|
| Product | 815DT Smart Differential Pressure Transmitter |
| Application | Monitoring Pressure Drop on Cyclone Separator |
| Industry | General |

Challenge Cyclone Separators are commonly used in many processes as they are the simplest and least expensive dust collection devices for industrial air pollution. When assessing the design and performance of a cyclone separator, engineers are generally interested in two parameters: particle collection efficiency and pressure drop through the cyclone. Research on cyclone separators has shown that for a given pressure drop the particle collection efficiency can be predicted.

Solution By using an 815DT Smart Differential Pressure Transmitter, the pressure drop across the cyclone separator can be easily measured and monitored during all stages of operation. Using the pressure drop data collected from the 815DT, the user is able to determine the optimal cyclone entry velocity needed to meet their desired particle collection efficiency, thereby reducing costs and energy demand of their process. Moreover, in addition to monitoring the pressure drop, the 815DT's configurable solid-state switch output could be used to alert an operator if the pressure drop through the cyclone varies significantly from their normal operating value.

