# Comparison of a standard cyclon and symmetrical double cyclon ZT

## Conventional standard cyclon :

Gap width at the apex cone : $h_{ac} = 10\ mm$
Apex cone angle : $\alpha_{ac} = 140°$

| gas volume flow rate $[m^3/h]$ | particle concentration $[g/m^3]$ | cut–off particle diameter $[\mu m]$ |
|---|---|---|
| 184.33 | 0.1 | 1.05 |
| | 0.45 | 0.86 |
| | 0.8 | 0.86 |
| 253.45 | 0.1 | 0.85 |
| | 0.45 | 0.86 |
| | 0.8 | 0.87 |

## Symmetrical double cyclon ZT :

Gap width at the apex cone : $h_{ac} = 10\ mm$ and $30\ mm$
Apex cone angle : $\alpha_{ac} = 140°$

| gas volume flow rate $[m^3/h]$ | particle concentration $[g/m^3]$ | cut–off particle diameter $[\mu m]$ |
|---|---|---|
| 184.33 | 0.1 | 0.75 / 0.64 |
| | 0.45 | 0.80 / 0.63 |
| | 0.8 | 0.78 / 0.65 |
| 253.45 | 0.1 | 0.64 / 0.65 |
| | 0.45 | 0.60 / 0.50 |
| | 0.8 | 0.56 / 0.49 |


**Investigation of Particle Separation in Symmetrical Double Cyclone Separators**

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