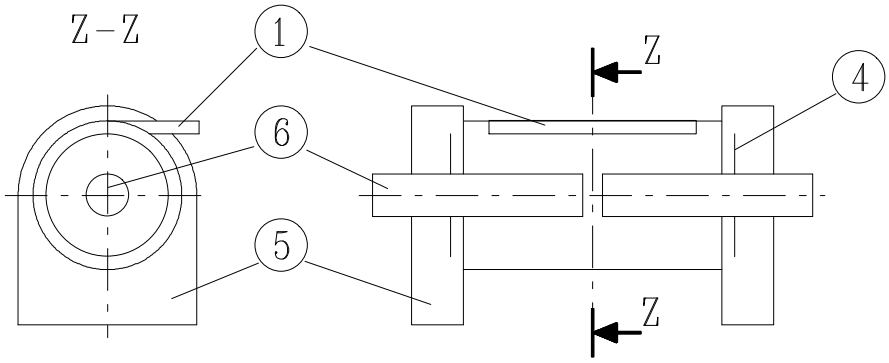
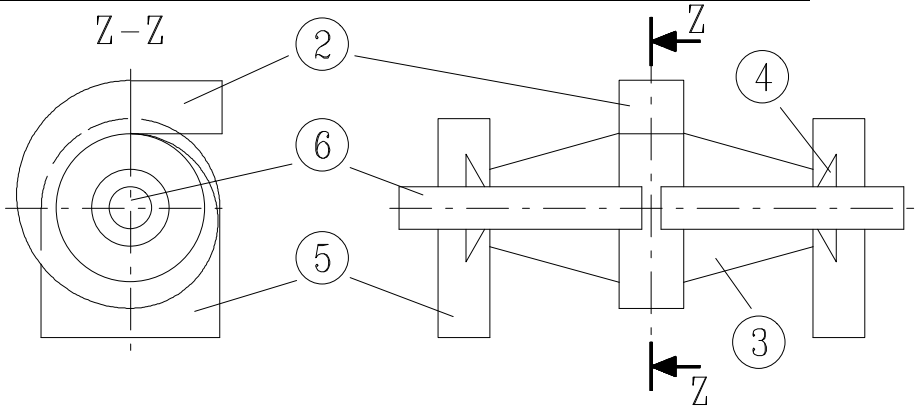
# Separation performance of cyclones ZA and ZS — experimental investigations

## Symmetrical vortex chamber ZA :




| Diameter of vortex chamber | 250 | 1000 | 4000 | $[mm]$ |
|---|---|---|---|---|
| cut–off particle diameter $x_{50}$ | 0.6 - 1.2 | 1.8 - 3.0 | 3.5 - 8.0 | $[\mu m]$ |
| gas volume flow rate $\dot{V}_F$ | 0.2 - 0.4 | 3.2 - 6.4 | 50.0 - 100.0 | $\left[10^3 \frac{m^3}{h}\right]$ |
| pressure loss $\Delta p$ | 0.5 - 2.0 | 0.5 - 2.0 | 0.5 - 2.0 | $[10^3\ Pa]$ |

## Symmetrical double cyclone ZS (spiral inlet) :




| Diameter of vortex chamber | 250 | 1000 | 4000 | $[mm]$ |
|---|---|---|---|---|
| cut–off particle diameter $x_{50}$ | 0.3 - 0.5 | 0.8 - 1.2 | 1.8 - 3.0 | $[\mu m]$ |
| gas volume flow rate $\dot{V}_F$ | 0.2 - 0.4 | 3.2 - 6.4 | 50.0 - 100.0 | $\left[10^3 \frac{m^3}{h}\right]$ |
| pressure loss $\Delta p$ | 0.5 - 2.0 | 0.5 - 2.0 | 0.5 - 2.0 | $[10^3\ Pa]$ |

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