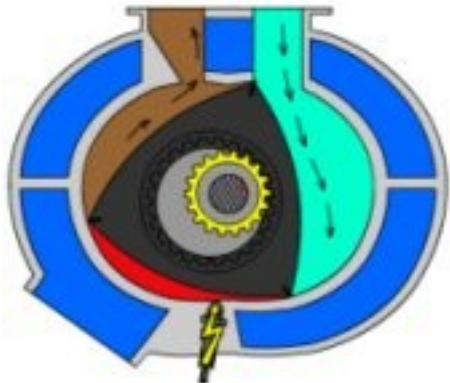


Exercise 1.22:

Wankelmotor	
<p>This motor with a rotation piston was created by Felix Wankel (1902 – 1988). A piston in shape of nearly a triangle is rotation in a housing. The corners of the triangle always have contact to the housing.</p>	

Examples of application

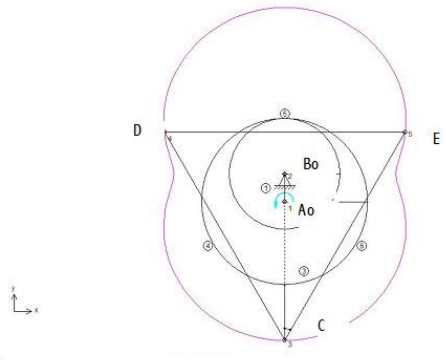


Mazda RX8 – at the moment the only car in Europe with a Wankelmotor.

Hercules W 2000, called „hoover“, 1780 unites were built and soled mostly in Germany since 1970.

Simulation with SAM:

The transmission ratio of the piston (internal toothed) and the pinion (external toothed) is 3:2; that means e.g. 30 teeth for the piston, 20 teeth for the pinion. The modulus of the teeth is: $m = 10 \text{ mm}$.

<p>Gear element (Internal tooth)</p> <p>A_o (0/0) B_o (0/50) $i = 1.5$ C (0/-250) D (250/150°) E (250/30°)</p>	<p>Icon: Create gear element</p> <p>A_o : Space bar (0/0) B_o : Space bar (0/50) $i_{21} = R_1/R_2$: Space bar 1.5 (Internal tooth \checkmark)</p>	
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