

[Home](#) > Explain with neat sketch working of lobe type air compressor

Explain with neat sketch working of lobe type air compressor

Question:

Explain with neat sketch working of lobe type air compressor.

Answer:

Lobe type air compressor: it is a rotary type of compressor consisting of two rotors which are driven externally. One rotor is connected to drive and second is connected to gear. These two rotors have two or three lobes having epicycloids, hypocycloid or involutes profiles. In the figure two lobes compressor is shown with a inlet arrangement and receiver. A very small clearance is maintained between surfaces so that wear is prevented. Air leakage through this clearance decreases efficiency of this compressor. During rotation a volume of air V at atmospheric pressure is trapped between left hand rotor and casing . this air is positively displaced with change in volume until space is opened to high pressure region. At this instant some high pressure air rushes back from the receiver and mixed with the blower air until both pressure are equalized .

