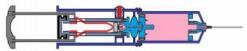
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What happens when a given mass of a gas is compressed

Experiments of Boyle, in a quantitative manner prove that gases are highly compressible because when a given mass of a gas is compressed, the same number of molecules occupy a smaller space. This means that gases become denser at high pressure.

A relationship can be obtained between a gas by using Boyle's law



$$d = \frac{m}{V}$$

 $pV = k_1$ from Boyl's L

$$V = k_1/p$$

d=m/V

put the value of V

 $d=m/k_1/p$

 $d=[m/k_1]xp....m/k_1 = a \text{ new const.}$

ie d is directly proportional to p when T = const

and m= constt

