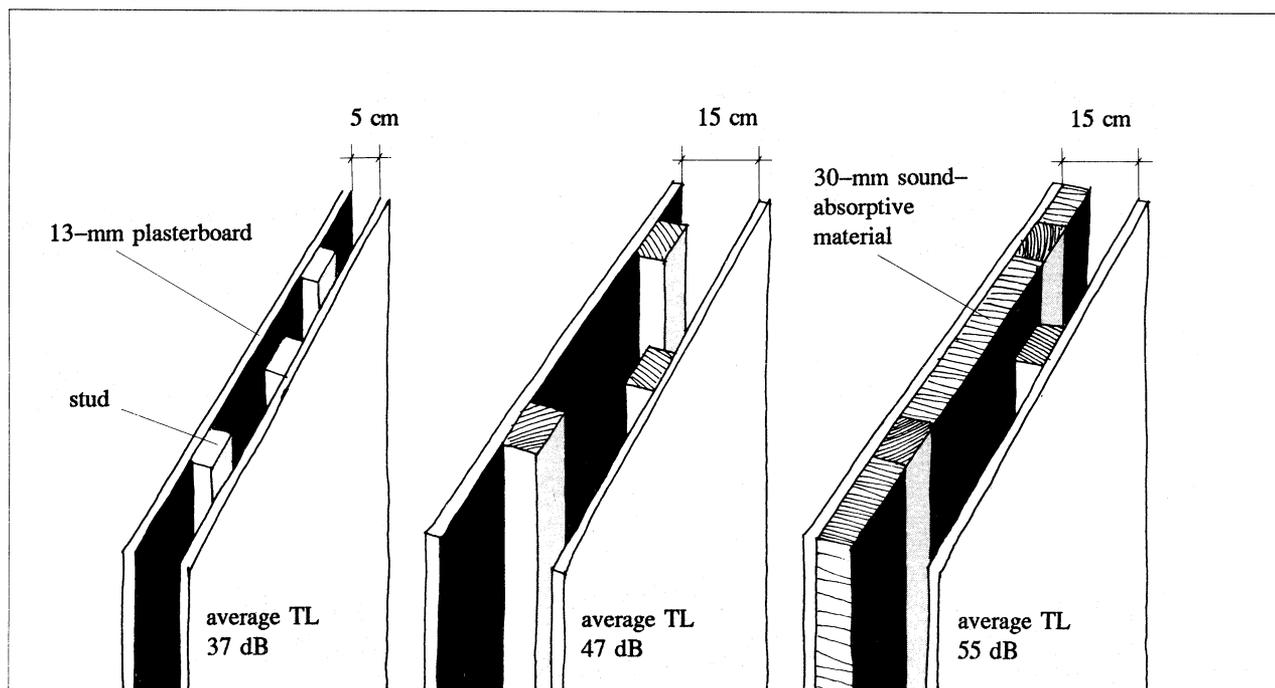


LIGHT DOUBLE WALLS PROVIDE GOOD ISOLATION

When two lightweight walls are separated by an air gap, the transmission loss (TL) increases as the spacing of the walls increases — up to about 15 cm. With sound-absorptive material in between, the TL further increases with larger spacings. Double walls may provide the same TL as single walls that are five to ten times as heavy.

Principle



Application in a Work Area with a Few Noisy Machines

Example

In two adjacent factory spaces separated by a thick heavy wall, a few extremely noisy machines disturb workers in both areas.

Control Measure

The noisy machines are brought together and installed at one end of one room. This room is divided by a lightweight double wall with a TL of 60 dB. The separation of the walls is large enough to create a passageway with doors separating the noisy and quiet areas. The isolation of the areas is at least 35 dB even if one of the doors is left open.

