

Steam Jet Ventilator

In steam jet ventilators live steam expands through the inlet nozzle, issuing at high velocity. The powerful suction thus produced entrains air or vapors via the suction connection. The suction medium, air, gas or vapor is either drawn in from the surrounding atmosphere or from the suction housing, depending on the type of ventilator construction used.



Advantages

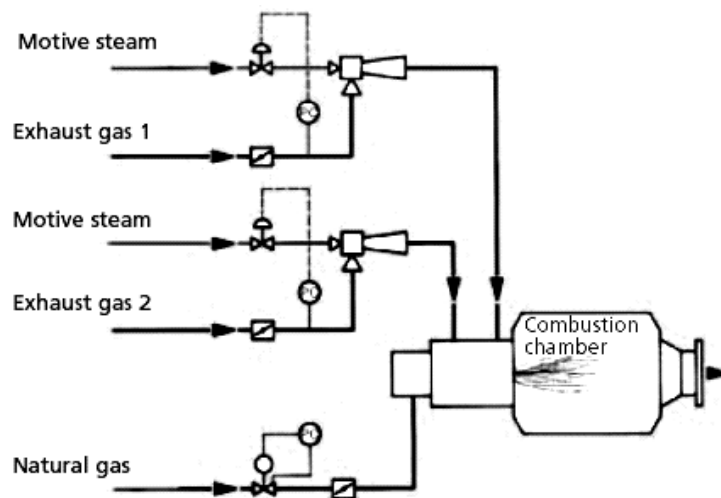
- An almost unlimited life when a suitable material of construction is chosen
- No moving parts
- Maintenance free
- Low priced
- Quickly and easily put into operation
- Manufactured from various materials of construction
- Installed in virtually all situations
- Larger compression (difference between suction and back pressure) than liquid jet ventilators



Applications

Steam jet ventilators convey air, gases and vapors against small pressure differences and are used, e. g., to:

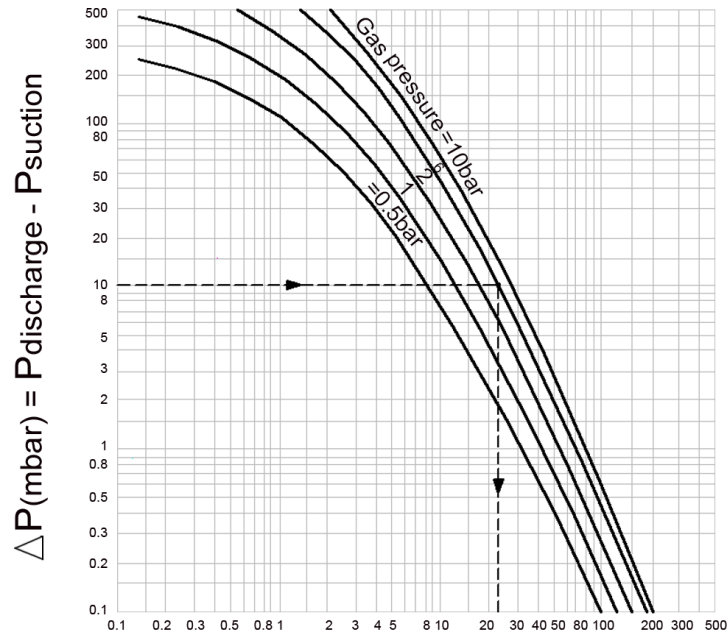
- To draw waste air, bad-smelling gases and vapors from working and storage areas
- To ventilate tanks, e.g. on ships
- As forced blast blowers, or stack ventilators for boiler burners
- To draw off and mix exhaust gases from the thermal afterburning
- A variety of processes such as degassing, drying, etc.



Steam jet ventilators to convey exhaust gases to the thermal afterburning

Range of Operation

- Motive steam pressure between 0.5 and 10 bar
- The achievable pressure difference between the suction and counter pressure (the compression of the steam jet ventilator: $\Delta p = p - p_0$) from 0.1 to 500 mbar
- Suction ratio (ratio of motive mass flow to suction mass flow) between 0.1 and 200



$$m = \frac{M_{\text{suction(Air)}}}{M_{\text{motive(Air)}}$$