polybloc
SWITZERLAND

Stainless-Steel Plate Heat Exchanger

Polyblocs work on the principle of crossed streams of air and are available for volumes up to 200'000 [m3/h]. The two mediums are sepa-rated from each other by surfaces kept at a dis-tance by way of wave plates. The wave structure of these distance plates as well as the crosswise arrangement of directions of air intake and outlet give the following advantages:

- Distribution of the air volume ensuring high alpha values, absence of internal formation of eddies (laminar streaming) ensuring:
  - minimal pressure loss
  - minimal dirt build up

- The wave-plate construction presents a considerable thermodynamically im-portant, increase in surface area.

- The special construction principle (wave plates, cross-wise laid) brings about a considerably more stable structure com-pared to conventional construction.

- Small susceptibility to deformation of the exchanger surfaces with differences in pressure (max. 10,000 [pa] between in-take and outlet volumes (many points of support of the wave plates). Thereby tube exchangers can often be substituted by plate exchangers.

- The heat exchanger structure has elastic and vibration-absorbing qualities which is of great value for transport and functional application.

- Distances between plates adjustable for various air volumes

- High operating temperature stability (up to 600°C).

- Different quality-levels are available e.g.
  - low leakage rate (max. 2%)
  - gastight with test certificate

- Lightweight due to compact construction

The simple standardized construction of poly-blocs is the reason for their low price and adapt-ability to meet the needs of the client.   Large-sized ex-changer blocks are made up by joining several smaller units (see page 4.2.5). The optimum of the relation price-efficiency is reached by cubic types (see chapter 4). Optimal price/ performance relationship is achieved in cubic one piece types

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