



Ten points to consider for planning of Strainers in plants:

- (1) Low resistance value (zeta-value)**

This way, you will save quite an amount of money in energy cost for the operator. As a matter of fact, a strainer with a high pressure drop shows a higher level of energy consumption (kW) than a strainer with low pressure drop; this can sum up to a yearly amount which is higher than the price of the product - year by year!
- (2) Large effective Filtering area**

The most important figure is the size of the filtering area which is provided into the stream, but not the installed filtering area – as usually highlighted in brochures.
- (3) Angle of impact between flow and sieve**

It is known, that a sieve with an impact angle of 90° will clog easier as one with a flat impact angle. Hitherto, the cleaning and maintenance intervals are lengthened.
- (4) Closed sieve-body**

By using an open sieve, filtered particles will remain within the housing of a strainer; this triggers additional unnecessary cleaning effort. By using a closed sieve, the filtered particles will be removed together with the sieve – the filter mud is already clean and recyclable.
- (5) Easy applicability of the strainer**

The capability of both horizontal and vertical applicability is simplifying the pipeline layout.
- (6) Good handling of top flange (,cover')**

Especially with strainer of larger dimensions (top flange weights more than 20kg), the maintenance personnel experiences it exhausting and time consuming, if cover, sealing and bolts are positioned head over or with an angle of $<45^\circ$ pointing down.
- (7) Weld able housing material**

Already within the planning phase, one can thus already consider the welding type strainer; this advantage is the lower cost by saving flanges, additional sealing and excluding potential leakage points. Even one-side flange types and various customised dimension are easy to provide, as well as strainers with stands, cover-mover and grips for measuring the differential pressure, can be installed even at a later stage, due to its weld ability.
- (8) Gaskets for manometers**

Any functioning strainer increases its pressure drop during operation and has to be cleaned; therefore, it is necessary to gain information on the level of dirt within the strainer.
- (9) Filtering fineness**

Bear in mind: plan of the sieve shall be “as coarse as necessary and as fine as possible!”. Any mesh size which has been chosen too fine, only shows an unnecessary increased frequency of maintenance and thus unsatisfied customers.
- (10) Sealing of the top flange (cover)**

The only consumable part of a good strainer shall be considered the sealing of the cover. It quite often surprises the maintenance personal, if strainer manufacturer solely provide “in-house” sealing, which can be only obtained from the supplier.