



LARGE-BORE FABRICATED Y-STRAINERS

Whereas imported cast and forged small-bore Y-strainers are freely available in the South African market, importing large-bore Y-strainers is an expensive and lengthy process. We are able to design and fabricate locally, Y-strainers with a nominal diameter of 100mm and greater, on quick lead-times and at a cost-effective price.

Y-type fabricated in-line strainers have been developed to provide simple, robust and cost-effective pipeline strainers which are effective in protecting downstream equipment such as pumps, valves and instruments from damage caused by particulate matter carried in the liquid stream.

When compared to basket strainers, Y-strainers are better priced but have a relatively low dirt-holding capacity and are difficult to clean. They are best used, therefore, in applications requiring protection of downstream equipment in comparatively clean-liquid conditions, and where it is not expected that the strainer will need to be opened and cleaned very frequently.

Operating Pressure

Our standard units are rated for maximum 1000 kPa operating pressure and are tested to 1200 kPa. Higher and lower pressure versions can be designed and manufactured to meet almost any pipeline requirement.

Materials of Construction

Our fabricated Y-strainers are available in carbon steel, 304 stainless steel and 316 stainless steel. Unless otherwise specified, carbon steel units are supplied untreated internally, and with primer and two coats of enamel paint externally. Stainless steel units are supplied in bead-blast, matt industrial finish. The standard internal strainer basket is made of 304 stainless steel, but is also available in 316 stainless steel if required.

Cover Securing Filtration Rating

Fabricated Y-strainers have bolted covers, although hinged covers are also available if required. The cover has a drain port in form of a plugged socket, and the drains is positioned on the cover such that it can be used a blowdown port if required.

Custom Designed Strainers

Purpose-designed strainers can be manufactured for most requirements. Some of the more common needs we have met include ASME VIII "coded" construction, steam jacketing, high and low operating pressures, and line sizes up to 900mm NB.

Filtration Rating

Our fabricated large-bore Y-strainers have a removable strainer basket in which

particulate matter from the liquid stream is trapped and retained. The basket can be manually removed from the strainer, cleaned, and returned to service. The basket is made from perforated plate and can be fitted with a mesh filtration liner if required. Thus, filtration ratings from as fine as 100µm nominal filtration are possible although, as with all filters, best practice is to filter only as fine as the application requires in order to avoid wasting energy and downtime removing particles which would do no harm if they remained in suspension.

Connections

Fabricated large-bore Y-strainers are fitted as standard with inlet & outlet flanges conforming to SANS 1123 table 1000/3. Other types of flanges and end-fittings are available if required.

Max Water Flow Rate (Max 3 m/s Port Velocity)

Max clean-basket pressure drop at flow rates set out below, is 15 kPa

model 100YSSLP	76 m3/h	model 300YSSLP	680 m3/h
model 125YSSLP	115 m3/h	model 350YSSLP	950 m3/h
model 150YSSLP	170 m3/h	model 400YSSLP	1220 m3/h
model 200YSSLP	300 m3/h	model 450YSSLP	1580 m3/h
model 250YSSLP	470 m3/h	model 500YSSLP	1950 m3/h

Viscosity Correction

While generally not suitable for high-viscosity applications due their relatively small open area compared to the inlet throat area, our large-bore fabricated Y-strainers can be used on moderately viscous applications. Resulting pressure drop can be estimated by multiplying the pressure drop above by a factor of:

Viscosity in centistokes	Unlined	<60 mesh	60-100 mesh
500	1.8	2.1	2.4
100	2.1	2.4	2.8