



Phone: (973)-340-9955
Fax: (973)-340-9933
Location: 20 Bushes Lane
Elmwood Park, NJ 07407
Website: www.straval.com



**INSTRUCTIONS PAGE
MODEL SBV05-TC**

**SANITARY TRI-CLAMP
BASKET STRAINER**

Model SBV05-TC

Sanitary Tri-Clamp Basket Strainer

APPLICATIONS:

This heavy-duty strainer is suitable for liquids, low-pressure steam, and gases, with operating pressures up to 150 PSI (10 Bar) and temperatures up to 300 °F (148 °C). It protects pipeline components such as pressure-reducing valves, relief valves, and other devices that require clean, filtered fluids for reliable operation.

The strainer basket is constructed of a heavy-duty stainless steel perforated element, with opening sizes ranging from 0.020" to 3/16". For applications requiring finer filtration, an optional stainless steel wire mesh can be added to capture particles down to 0.002". A V-band clamp allows for rapid removal and cleaning of the basket whenever clogging occurs.

Although not shown, similar models are available with NPT and 150# flange connections, and higher-pressure versions can be supplied for more demanding system requirements.

PRINCIPLE OF OPERATION

The strainer operates with no moving parts, ensuring simple and reliable performance. Proper sizing for flow and pressure rating, as well as correct inlet and outlet piping, is essential for optimal operation.

Flow enters through the port marked **"Inlet"**, passes through the basket from the inside out, and exits through the **"Outlet"** port.

Under normal conditions, pressure drop across the basket is minimal. As the basket collects debris, resistance to flow increases, resulting in a higher pressure drop. If clogging becomes excessive, flow capacity decreases, and there is a risk of basket damage if the differential pressure exceeds the design limit. To prevent excessive pressure buildup or basket damage, a differential pressure gauge or monitor should be installed to show when the basket requires cleaning.

Maintaining a clean basket ensures consistent flow, minimizes pressure loss, and protects downstream equipment from contamination and potential damage.

BASKET REMOVAL AND CLEANING

Before removing the basket, ensure that the strainer is completely depressurized and has cooled to a safe handling temperature. If isolation valves are not installed, the entire section of piping containing the strainer must be drained. When isolation valves are present, close them to cut off flow and prevent accidental discharge or injury when the strainer cover is removed.

Once it is confirmed that no pressure remains in the body, remove V-band clamp, then cover, and lift out the basket assembly. Clean the basket thoroughly and remove any accumulated debris. Use appropriate protective clothing and equipment when handling hazardous or hot fluids.

Be careful not to damage any fine stainless steel wire mesh that may be fitted to the basket. Perforated-only baskets are more durable and can withstand more aggressive cleaning methods.

Inspect the teflon ring on the basket for wear or damage. This seal is stationary and typically does not need to be replaced unless damaged.

After cleaning and inspection, reinstall the basket and cover securely, ensuring the seals are properly seated and the V-band clamp is evenly tightened to prevent leakage during operation.

Maintenance & Repair

Routine maintenance consists primarily of monitoring the strainer to prevent the basket from becoming excessively clogged and ensuring it is cleaned at regular intervals. This should be tracked by observing any increase in differential pressure across the strainer, as discussed above.

Inspection intervals should be established based on system operating conditions and the level of contamination typically present in the process fluid. More frequent inspection is recommended during initial operation to determine an appropriate maintenance schedule.

For critical installations where downtime cannot be tolerated, it is recommended to keep a spare basket and replacement seals on hand. These parts should ideally be ordered at the same time as the strainer to ensure compatibility and availability when required.