

VISCOUS LIQUID SAMPLING EDUCTORS

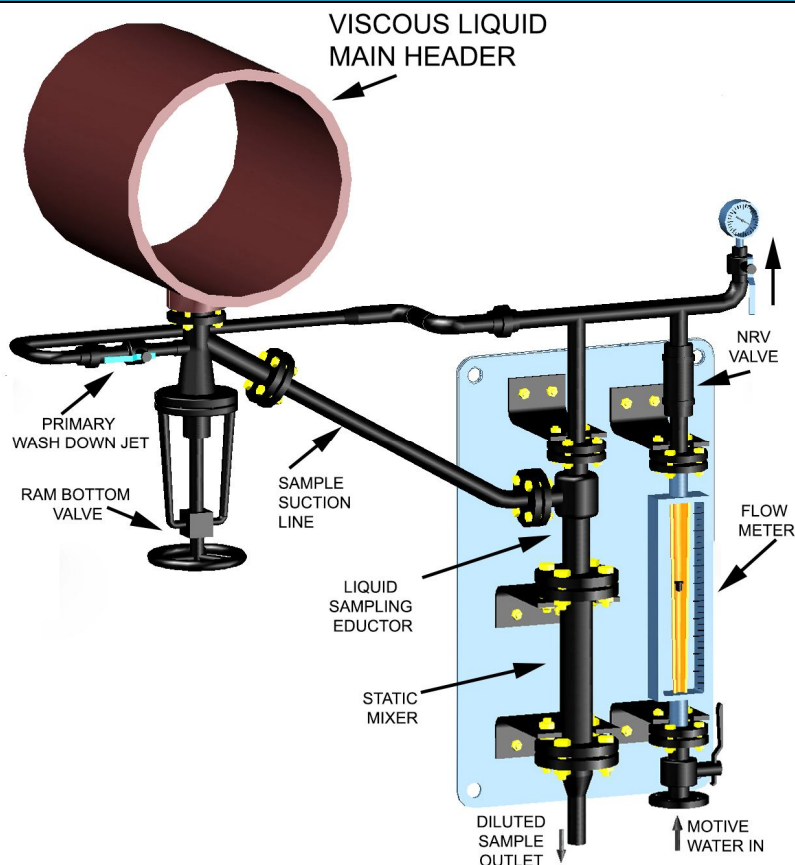
E2000 SERIES



INTRODUCTION

- Viscous liquid sampling eductor is used for sampling highly viscous liquid for analyzing & studying its characteristics.
- Handling of viscous liquids in industries is a major problem as it requires more energy for transporting them and also the viscosity drastically changes with changes in temperature . Sampling of such fluids often results in great difficulties, such as choking, solidifying in the sampling branch lines resulting in hindrance in sampling and process monitoring and control. In such case , viscous liquid sampling eductor can be used.
- The eductor not only helps in transporting the viscous liquid which has more resistance to flow but also creates uniform mixing of various components. The mixing proportion required can be maintained using eductors.
- The viscous liquid sampling eductor system consists of the following major parts :
 - An eductor – for creating vacuum
 - RAM bottom valve – provides precise opening for the liquid to flow from source header.
 - A static mixer – for uniform mixing before process parameter analysis.
 - Interconnecting pipes, fittings & valves.
- Viscous sampling eductor can be used only when the particular sample can be diluted using water.

TYPICAL INSTALLTION



SAMPLING OPERATION

- A **venturi** eductor is used in this system to create vacuum so that the liquid to be sampled can be sucked in.
- Viscous liquid sampling eductor assembly also consists of special valve called as the “RAM Bottom Valve (**RBV**)” which provides the required opening for the flow of liquid to be sampled as per the customer's requirement.
- A static mixer is provided which ensures uniform mixing of the liquid to be sampled & the motive water.
- Sampling of the sample from Gravity flow pipe line is expected to be carried out for a short duration to ensure minimum loss of sample.
- Suitably sized Eductor is selected for the convenience in operation & maintenance when compared to small nozzles for this critical service.
- Primary wash down jet in RBV at close proximity to sample exit from tapping point to ensure easy dilution process and to avoid any choking in eductor suction line. This provision ensures trouble free sampling each time.
- Primary Dilution ensures continuous suction flush out for the eductor during sampling.
- Eductor evacuates suction line and when sample line RBV is opened, it draws sample from the Gravity flow pipe line
- Eductor is designed to dilute the incoming partially diluted water to customer's requirement.
- The diluted sample passed through a vertical Glass ball column static mixer designed to conduct the flow while ensuring thorough mixing after initial mixing at eductor throat & diffuser.
- The motive water can also be used for cleaning the RBV by circulating it when the RBV is in closed position.

ADVANTAGES

• Applicable to wide range of viscous fluids.	• No moving parts involved
• Safe	• Simple & reliable
• Easy to install	• Easy to maintain as no choking
	• Low Cost

INDUSTRIES UTILISING VISCOUS LIQUID SAMPLING EDUCTORS

Industries handling viscous liquids such as Petrochemicals, Pharmaceutical, Food, Fertilizer industries can find this product applicable to their processes.

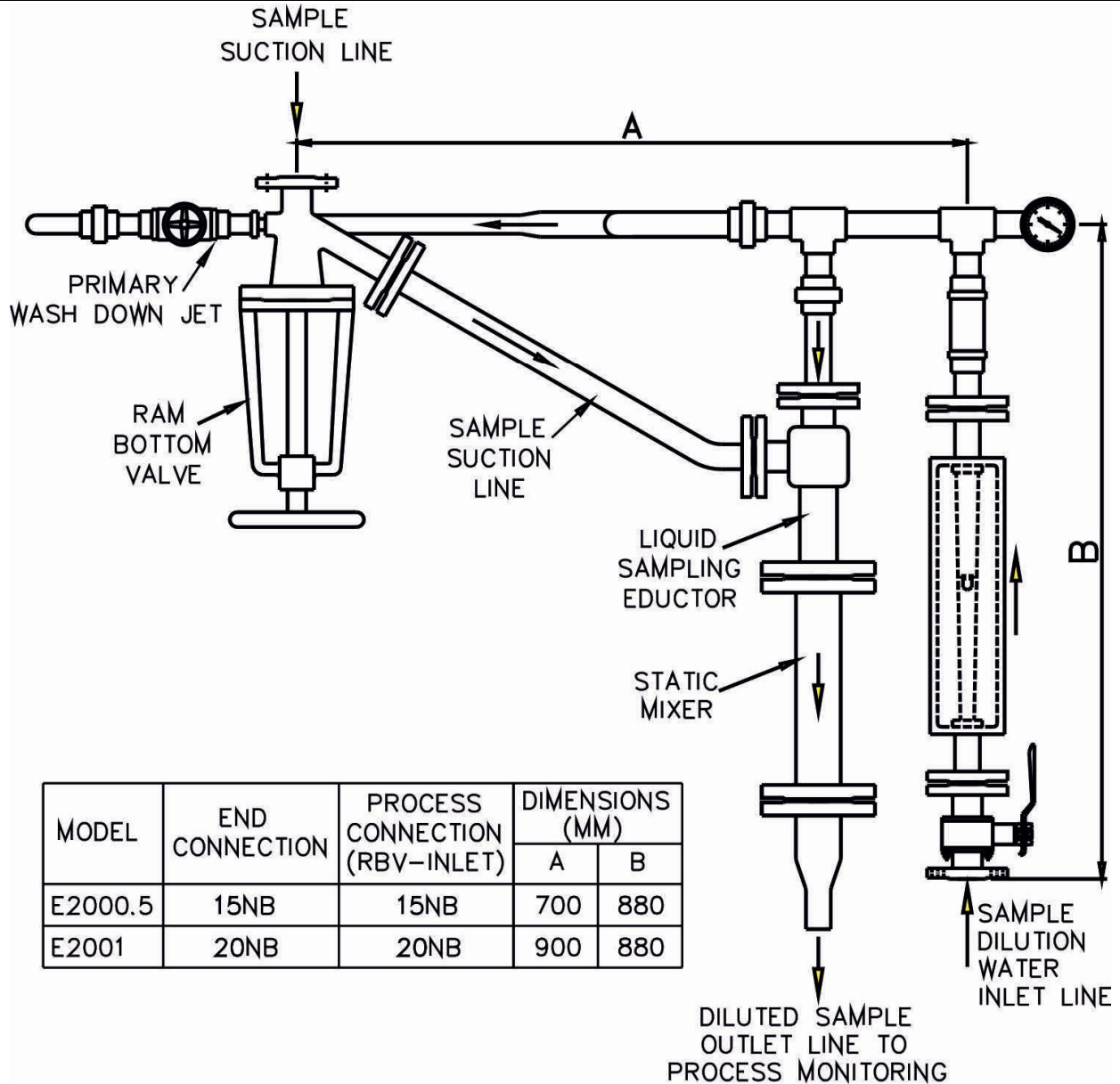
MATERIAL OF CONSTRUCTION

We offer the pump with the following materials as standard :

- CI
- CS
- SS

Other materials can also be offered as per customer requirement.

DIMENSIONAL DETAILS



END CONNECTIONS

Flanged to ANSI B16.5 150# as a standard. We can also provide other standard and end connection as per the requirement of the Customer.



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