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DEA Engineering: a Pioneer in DEA Micro Flow Meters by Adamina Ada

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DEA Engineering is the master in manufacturing low flow meters. The DEA micro flow meter accurately measures liquids with low flow. These flow meters are less costly than other flow meters available in the market such as oil flow meter. DEA Engineering manufactures liquid measuring instruments and fluid meters that are capable of measuring low flow rates. These meters are of good quality and are less prone to wear and tear. They are capable of service in hostile liquids. These meters can be easily cleaned by disassembling and reassembling. The possibility of cleaning these meters makes them unique. But this should be done with utmost care.

The simplicity of DEA engineering micro flow meters makes them cheaper than other flow meters such as an Oil Flow Meter. An oil flow meter also measures flow rates but it is very complicated when compared to DEA flow meters. Also, DEA flow meters are less prone to wear and tear. DEA flow meter parts are so small that the velocities of the moving parts are also low. The forces on the side of the nutation fall weak when compared to large opposing forces acting on the other side. The difference in the forces makes the flow fast and smooth.

Internally, the flow meter is rounded resulting in a rolling motion rather than a sliding operation. The moving parts of the DEA flow meter are not attached to one another and hence, the flow meter is able to measure similar flow rates.

If, in case, the moving parts get clogged or attached with debris or anything else, the same can be carefully cleaned and reassembled in the field. The micro flow meter displaces an amount of liquid which is equal to the difference in the volumes of the chambers minus the volumes of the pistons. This is a continuous process that is repeated in a flow mode at the rate of 1 to 210 complete cycles per second. This rate is proportionate to the fluid flowing through the meter.

Signals are detected by light interruptions of a detector device or a photo emitter. The magnet in the nutation is tracked by a ferromagnetic wire. The light interruptions are electronically manifested. The sine waves are conditioned by conventional electronic means in order to provide a square wave output. In case of very low flow applications, you would require two micro flow meters to attain the desired repeatability and accuracy. This would be required more in case of liquid measured in lubricity. Valves need to be checked in case the micro flow meter is subject to hydraulic pulsations. In order to ensure smooth operation of DEA micro flow meter, wires controlling the inductive devices should not be bundled over long distances with sensor wires.

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The above article talks about a DEA Engineering that manufactures the DEA micro flow meter. It talks in detail about a DEA Micro Flow Meter and how they are different from other flow meters used in an oil transfer pump setting.

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