Restriction Orifice

LG-XLB Series of Restriction Orifice

1. Overview

Restriction orifice is used at the pipelines to limit the flow of fluid or reduce the fluid pressure. LG-XLB series of restriction orifices are designed and manufactured according to national standard HG/T 20570 and international standard ISO 5167 etc.

2. Principle of measurement

When the fluid flows through the orifice plate, the differential pressure should be formed, and the flow through the orifice will be increased with the increase of differential pressure. But when differential pressure exceed a certain value, i.e exceed the critical differential pressure, no matter how the outlet pressure drop, the flow will keep a certain value and don't increase. Restriction orifices are used to limit the flow of fluid or reduce the fluid pressure based on this principle.

Restriction orifice is divided into single hole and multi hole per number of the holes, and can be divided into single level and multi level.

3. Usage

A. The pressure needed to be dropped for process raw material.

B. If biggish pressure drop required for the upstream and downstream of the valves, we also know that no gas doping will happen when orifice plate limit the flow, in order to reduce the ablation from the fluid to the valve, the orifice plate can be installed in series at the upstream of the valves.

C. The occasion for low and continuous flow, such as flushing pipes of the pump, bypass pipes of the hot standby pump (low flow protection pipe), analytical sampling pipes, etc.

D. The occasion for the noise reduction or abrasion reduction to be required

through pressure dropping, such as vent system.

4. Main technical parameters

A. Nominal diameter: 10mm≤DN≤500mm;

B. Nominal pressure: PN≤42MPa;

C. Working temperature: -50℃≤t≤550℃;

D. Nos of stages: single-stage, multi-stage;

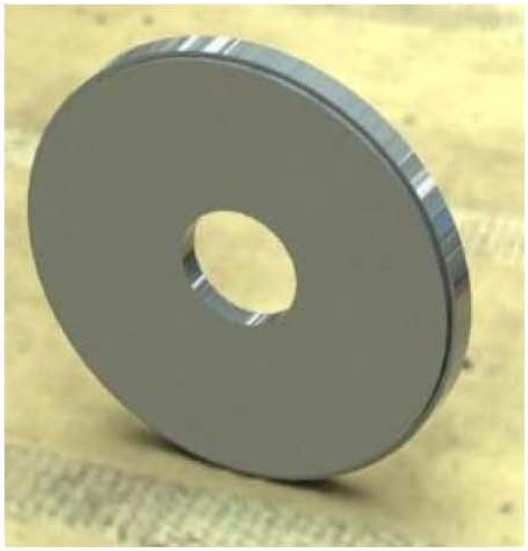
E. Nos of holes: Single hole, multi hole;

F. Precision: Class1, Class1.5, Class2.

5. Construction type:

A. For nominal diameter not exceed 50mm, restriction orifice to be made as integral processing.

B.For nominal diameter above 50mm, the orifice plate to be machined separately and welded in the pipe.



6. Model marking method:

LG-XLB-DN□-PN□-n

LG——Base model

XLB——Restriction orifice plate

DN□——Nominal diameter(mm)，for example: DN100，means nominal diameter is 100mm

PN□——Nominal pressure（MPa），for example:PN1.6，means nominal pressure is 1.6MPa。

n——Number of stage of orifice plates. n=1, means single-stage, n>1, means multi-stages.