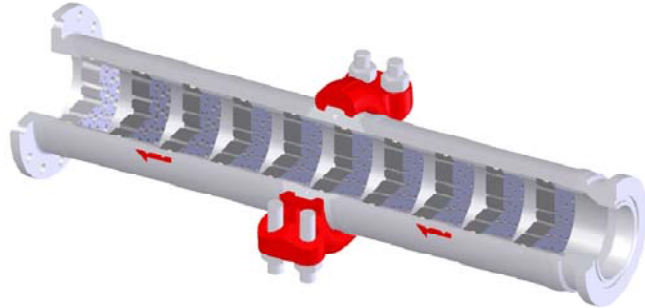


# **HPE** Energy Dissipator

The purpose of dissipators is to destroy the pressure energy in fluids so that the energy can be reduced by a finite desired amount.



## GENERAL DESCRIPTION

The basic dissipator element consists of a hole in a plate. By having a number of holes in a number of spaced apart plates that are in the flow path, the flow can be broken down in steps and the small dissipator holes in the plates distribute the flows evenly across the cross section of the pipe in which the plates are mounted. The number and size of the holes in plates, which are located by spacers from each other, are varied so that the smallest holes are on the high-pressure side and the largest holes on the low-pressure side. In this manner the pressure drop across each plate is related to the down stream pressure for that particular plate so that the flow velocity can be maintained to a level that will prevent cavitation at the point where the holes exit into the chambers between the plates. By eliminating the cavitation, the noise produced by the fluids can be reduced and the damage that normally occurs with cavitation can be virtually eliminated. In our designs the first plate or two have at least one hole plugged. Should a minor increase flow rate be required, that hole can be opened to increase the flow through the system. To reduce the flow through the system another hole or two are threaded and can be plugged. For that further purpose the first plate which can be reached without dismantling the dissipator is designed to accommodate a lower pressure drop to still keep the flow rates below the cavitation velocity under the selected conditions. The pipe in which the dissipator elements are mounted is provided with hubs or flanges to client specification.

## FEATURES

Due to the graduation of the hole sizes in the dissipator elements the noise levels and wear rates of our dissipators are minimized. The dissipator chambers themselves are designed so that the containing pipe is protected against flow velocity or cavitation by the spacers between the dissipator elements. Each dissipator element is individually sealed against the outer pipe so that no flow can occur on the outside of the dissipator elements and therefore no wear can occur on that pipe.

## TECHNICAL SPECIFICATION

1. Sizes - The units are manufactured in sizes from 20NB to 350NB at pressure ratings of 3 MPa to 30 MPa.
2. Length - The axial lengths of these units are generally as per our valve standards for similar pressure ratings and can therefore be interchanged with our valves whenever necessary. The units are designed to ANSI B16.34 as for valves.
3. Noise levels - The noise level at a distance of 1m from the dissipator is maximum 90 decibel.

For further details about the design of dissipators and the application please contact our technical department.

**HPE** Hydro Power Equipment is manufactured in South Africa and is represented by  
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