

SPECIFICATION

MODEL FED

FIXED ENERGY DISSIPATION VALVE

APPLICATION

The fixed energy dissipation valve shall be an inline device that controls pressure or flow for a specific set of operating conditions, in applications with extremely high pressure drops, high velocities, or cavitation. Performance is limited to the original design parameters - when either flow or pressure conditions change, the other variable will also change.

DESIGN

The FED shall be a flange mounted device designed to mount between two mating pipe flanges. The sleeve chamber of the FED shall extend into the upstream section of pipe and shall incorporate multiple control nozzles to effectively contain cavitation within its body. Nozzle design and configuration will be determined specifically for each flow and pressure drop application. The nozzles will be distributed around the periphery of the control chamber to evenly distribute the pressure drop. The FED will be specifically installed in the pipeline to assure flow passes from the outside of the chamber to the inside of the chamber containing any potential damaging cavitation within its control chamber. Furthermore the design of the chamber and associated nozzles shall be configured to prevent damaging flow streams or jets downstream of the control chamber.

It is strongly recommended that the associated piping and valve network of the FED incorporate gauge cocks on inlet side and outlet side of it to receive pressure gauges for testing purposes (and to assure the FED flow is not restricted due to pipeline debris). Additional provisions in the associated pipeline design will need to be made to facilitate servicing, cleaning, or possible removal.

PHYSICAL & CHEMICAL PROPERTIES

The valve shall be constructed of Stainless Steel components conforming to ASTM Specification A-743 Grade CF-8 or CF-8M. Specifications for the orifice pattern (hole size, hole spacing, etc) are determined on a case by case basis, to optimize flow and pressure characteristics based on the anticipated operating conditions.

The flanged assemblies shall conform to ANSI standards for wall thickness of body and caps, and flange thickness and drilling, subject to other specified standards.

TESTING

A performance test shall be performed on the completely assembled valve prior to shipment. The test may be witnessed by the customer/engineer or representative.

The valve shall be equal in all respects to the Model FED as manufactured by Ross Valve Mfg. Co., Inc, 6 Oakwood Ave, Troy, NY 12180.

Note: The Ross Valve Mfg. Co., Inc. reserves the right to modify valve construction which will result in equal or superior performance to existing designs. These modifications may be made at any time and at the sole discretion of the manufacturer.