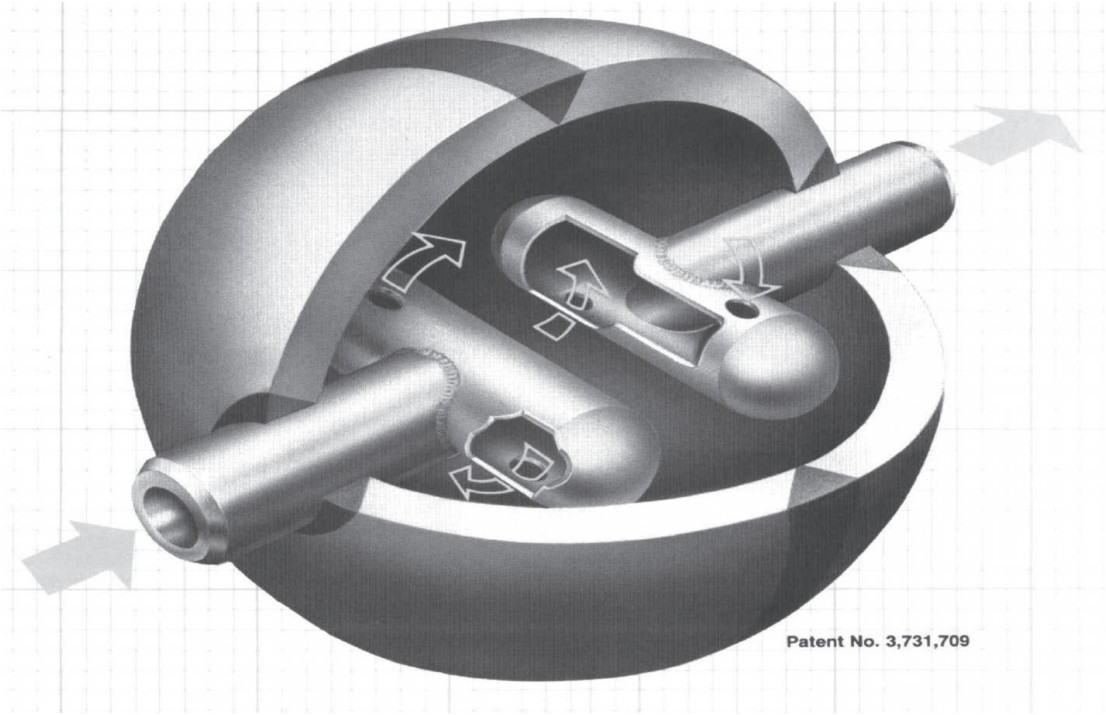
ROTATING RIGHT

FLUID KINETICS PDS LIQUID PULSATION DAMPENER

FLUID KINETICS

MODEL PDS LIQUID PULSATION DAMPENER

An inline device to eliminate pulsation and reduce maintenance in power pump discharge lines



GENERAL

The Fluid Kinetics Liquid Pulsation Dampener reduces discharge pressure pulsation by approximately 75%. Actual performance depends on the type of pump, connected piping system, and liquid handled.

The spherical shape is strongest pound-for-pound in pressure-containing service.. up to 6000 psi, design pressure is standard.

Maintenance free, the dampener can be permanently welded in the line, saving flange costs and potential flange leaks. Inline configuration eliminates special support problems.

DESIGN

Completely liquid filled, with no moving pans, this dampener does away with maintenance and gas charging requirements,

The stationary internals guide the incoming flow into a rotating path within the spherical shell. The spinning liquid mass creates a system smoothing effect. viscous drag on the sphere walls and the capacitance effect of the relatively large volume located next to the pump, further aid to dampen pressure pulsation.

CONSTRUCTION

The dampener is all steel construction, with no bladders to fill or replace, and virtually no temperature limitation. With nozzles beveled for weld, the unit becomes a part of the piping.

Carbon steel construction is standard, but other materials are available.

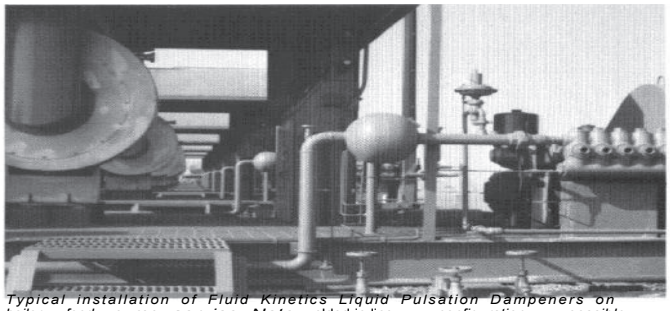
APPLICATION

All power pumps produce pulsation. Whether or not the pulsation is severe enough to create problems depends upon many system variables. A few of these variables are the fluid handled, the type of pump and the pump speed. As a general guide, Fluid Kinetics engineers recommend using the Liquid Pulsation Dampener on any multi-plunger pump service having a discharge pressure over 500 psig, or on any service, regardless of pressure, whether pulsation problems are expected and a maintenance-free device is required.

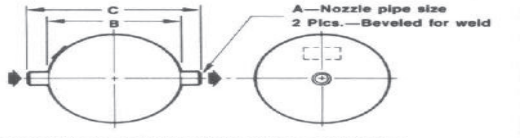
SELECTION

Make the model selection from the performance charts based on the type of pump and flow rate. Choose the appropriate series based on the desired design pressure and identify the size and type of connection required.

For special applications or special construction requirements, contact your Fluid Kinetics representative or factory specialist.

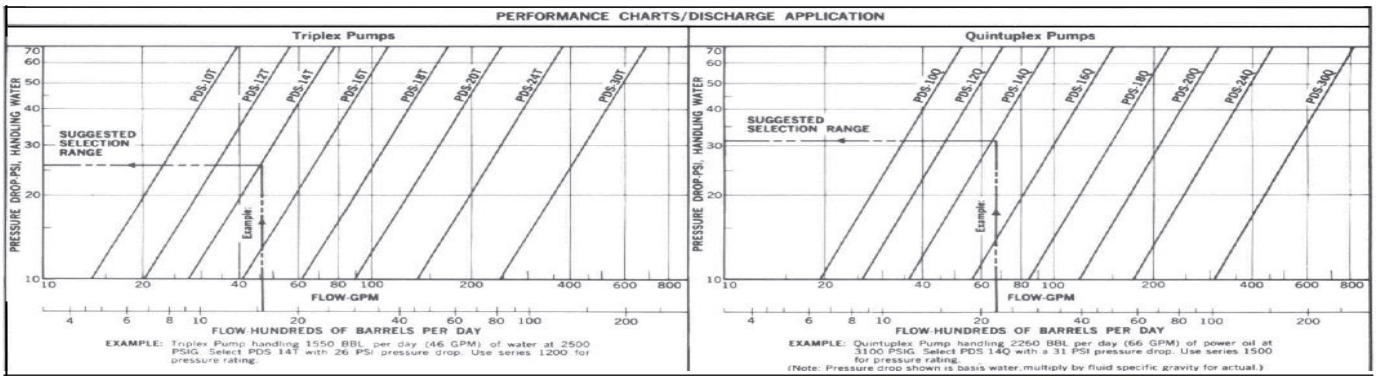


Typical installation of Fluid Kinetics Liquid Pulsation Dampeners on boiler feed pump service. Note welded-in-line configuration oossible *because of their* no-maintenance features.



1. Dampener to be installed directly at pump discharge.
2. Clamp type support to be provided at dampener outlet nozzle.
3. Material—Carbon Steel
4. Exterior Finish—Red Primer

FKC MODEL	A	B	C	WEIGHT (LB) SERIES 600	SERIES 900	SERIES 1200	SERIES 1500	SERIES 2000	SERIES 2500
PRESSURE RATING AT 100°F				1440	2160	3000	3600	5000	6000
PDS 1 — 10	1	10¾	14	45	50	55	65	90	100
PDS 1.25 — 12	1¼	12¾	18	70	80	95	105	115	135
PDS 1.5 — 14	1½	14	20	80	105	115	125	160	175
PDS 2 — 16	2	16	22	115	135	165	215	260	285
PDS 2 — 18	2	18	25	190	210	245	270	325	360
PDS 2.5 — 20	2½	20	28	245	300	315	380	455	530
PDS 3 — 24	3	24	34	340	370	550	670	785	950
PDS 4 — 30	4	30	42	740	865	910	1080	1610	1960



CONTROL OF PUMP SUCTION CONDITIONS

On many power pump systems, suction conditions are far from ideal. For positive protection against cavitation, entrained gas and other suction side problems, install a Fluid Kinetics Model SSC Stabilizer/Separator and Model SSCV Vapor Dome Stabilizer/Separator. Ask for Bulletin 402 and 403, giving complete information on this problem-solving product.

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