

PD Sanitary Pulsation Dampener

The Equilibar® PD Series sanitary pulsation dampener is designed to decrease excessive pressure fluctuations due to process equipment such as pumps while being cleanable and drainable.

IMPROVED OUTCOMES

- Increased lifetime of filter membranes and chromatography columns
- Increased product viability
- Less cell damage
- Consistent stoichiometry
- Overall Increase in Yield

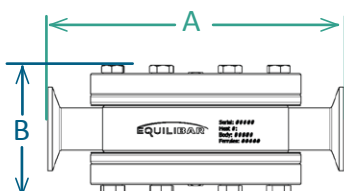


Design Highlights

- SS316/316L standard body material
- Optional body materials: 1.4435 SS or exotic alloys (HC-22, etc.)
- All wetted materials are USP class VI/FDA grade PTFE
- ¼" to 3" Line Size
- Triclamp standard end connection
- Cleanable and Drainable: Ideally installed in vertical orientation
- Pressure Rated to 150 PSI / 10 BAR
- Temperature Rated to 135°C
- Air-Loaded Double-Sided Dampening Technology
- Dampens downstream pulsations from positive displacement pumps

Part Number Key

In general, the proper PD for your system will be the same size as the system line size. Consult with an Equilibar engineer to confirm. Port Size listings are ASME Tri-Clamp



PD dimensional drawing

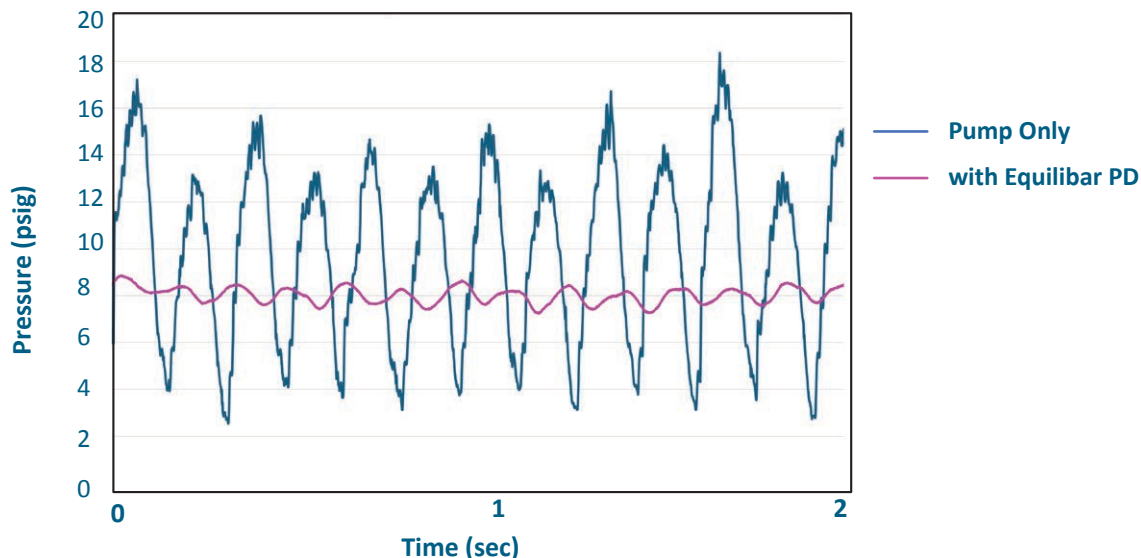
PORT SIZE	PD PART NUMBER	DIM A	DIM B
		INCH (MM)	INCH (MM)
1/4"	PD2SHX0-NSCP150T135J10-S	3.5 (89)	2.4 (61)
3/8"	PD3SHX0-NSCP150T135J10-S	4.0 (101)	2.4 (61)
1/2"	PD4SHX1-NSCP150T135J10-S	4.5 (114)	2.8 (71)
3/4"	PD6SHX0-NSCP150T135J10-S	4.9 (125)	2.8 (71)
1"	PD8SHX0-NSCP150T135J15-S	7.0 (178)	3 (76)
1-1/2"	PD12SHX0-NSCP150T135J15-S	8.0 (203)	3.6 (91)
2"	PD16SHX0-NSCP150T135J20-S	9.4 (239)	4.2 (107)
3"	PD24SHX0-NSCP150T135J20-S	13.1 (333)	5.8 (147)

PATENT INFORMATION www.equilibar.com/support/patents/

Performance

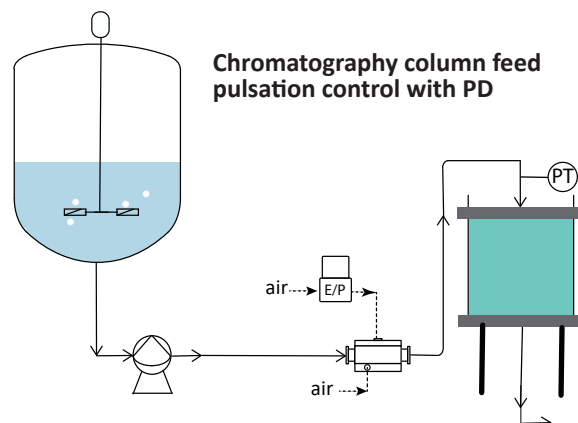
The easiest way to identify pulsations in a system is to evaluate a system's pressure profile. Below is a plot of pressure data collected downstream of an air-operated double diaphragm (AODD) pump. This snapshot shows a downstream pressure profile at the pump outlet with the pump only and with an Equilibar PD. Results will vary with pump type, process setup and line size.

Pressure Profile Downstream of an Air-Operated Double Diaphragm (AODD) Pump



EXAMPLE APPLICATION

An Equilibar PD device can be used downstream of a delivery pump feeding the chromatography column. The PD modulates to maintain pressure and actively dampen pulsations in the media going to the chromatography process. Reduced pulsations help improve yield and column life.



About Equilibar

Equilibar provides innovative and robust fluid control technology for researchers and engineers worldwide. We are proud to design, manufacture and test our products in our factory overlooking the Blue Ridge Mountains near Asheville, NC.

APPLICATION ENGINEERING –WHAT SETS US APART

Unlike mass-market regulator distributors, we focus on working with you, the scientist or engineer with a complex fluid control scenario.

Our application engineers work collaboratively with clients to identify the optimal model, trim, and diaphragm for each application's unique challenges. No matter where you are on the globe, you can stay in close contact with your engineer by email, telephone, or video conference.

After installation, your application engineer will support you with start-up information and fine-tuning as needed.

Equilibar's quality system is
ISO 9001:2015 certified.

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USA



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