

# DMP-7000

## Single-Use Pulsation Dampener

The DMP-7000 pulsation dampener is designed for single-use applications in the life sciences industries.

Positive displacement pumps, such as diaphragm and peristaltic pumps, produce pulsations in the fluid. These pulsations can negatively impact single-use pharmaceutical production processes such as TFF and chromatography, which need tightly controlled flow rates and line pressures. Malema's single-use dampeners reduce pulsation and variations in flow of critical biopharmaceutical media in processing and transfer applications.

DMP-7000 dampeners are manufactured with all-plastic wetted surfaces that meet USP Class VI, USP 661.2, and USP 788 requirements. The molded design reduces shear and improves surface smoothness. They are gammastable to 50 kGy.

## APPLICATIONS

- Filling and Fluid Transfer
- Chromatography
- Tangential Flow Filtration
- Depth Filtration



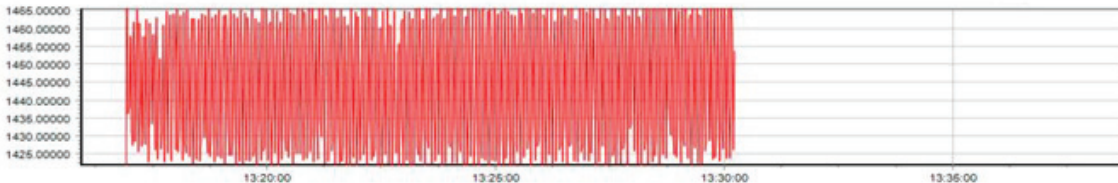
## FEATURES & BENEFITS

- ✓ ~85% reduction in peak to peak flow pulsation
- ✓ Wetted fluid path made of Polyurethane and PEEK that meets USP Class VI, USP 661.2, and USP 788 requirements
- ✓ Patent-pending single-use design eliminates pulsation in flow rate and line pressure
- ✓ Gamma-stable to 50 kGy
- ✓ Available for line sizes from 1/16" to 1" ID, and with hose barb or tri-clamp fluid connections
- ✓ Pressure rating to 90 psi (6 bar)

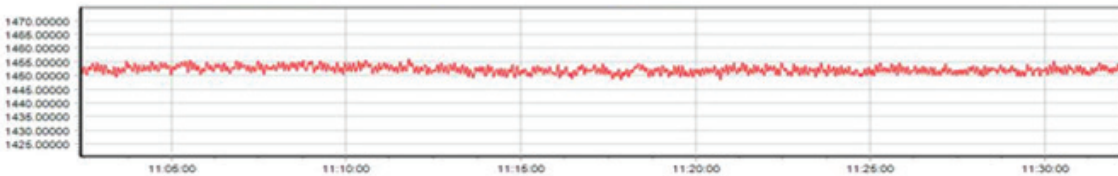
## PRINCIPAL OF OPERATION

Fluid enters the DMP-7000 pulsation dampener downstream of the positive displacement pump. Inside the dampener, a series of flexible polyurethane membraned chambers absorb the pulsation caused by the pump and stabilizes the downstream flow rate.

## FLOW OUTPUT TRACES



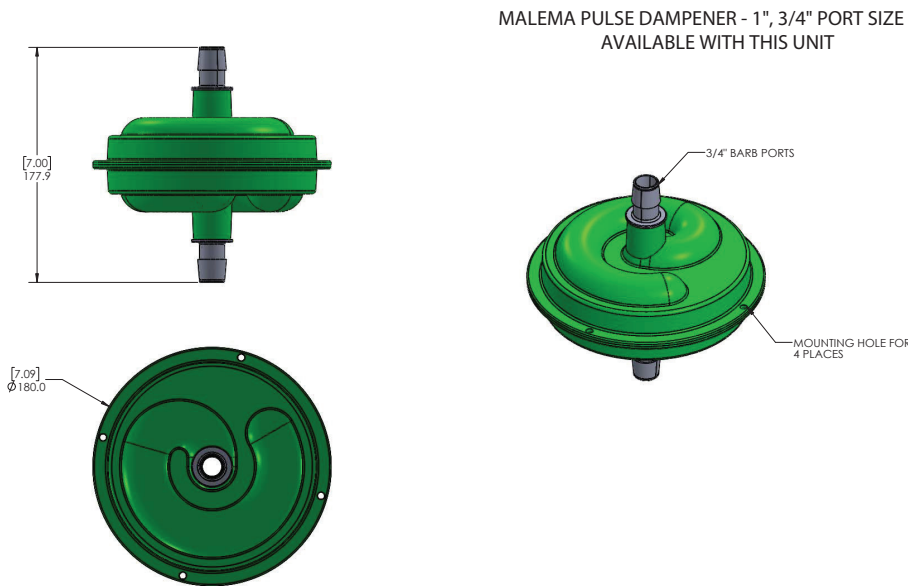
**Figure 1.** 1/4" ID fluid path with water, pumped using industry-standard diaphragm pump without dampener. The difference between min and max flow is approx. 40 g/min at 1445 g/min nominal flow rate.



**Figure 2.** The same 1/4" ID fluid path with water, pumped the same industry-standard diaphragm pump with DMP-7000 installed between pump and flow meter. The difference between min and max flow is approx. 5 g/min at 1453 g/min nominal flow rate.

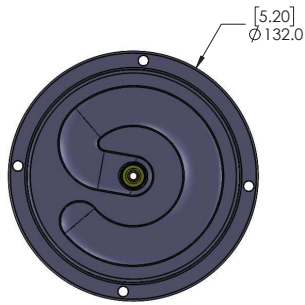
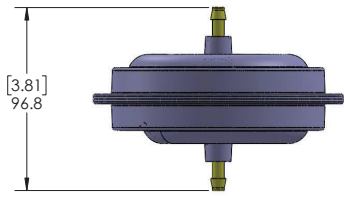
## DIMENSIONAL DRAWINGS

For reference only

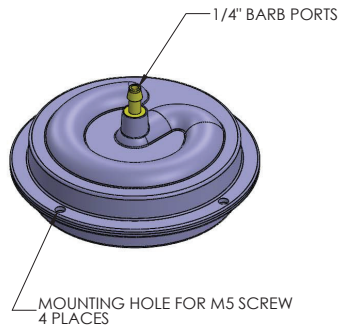


## DIMENSIONAL DRAWINGS

For reference only

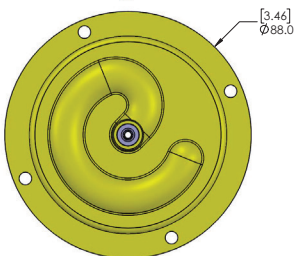
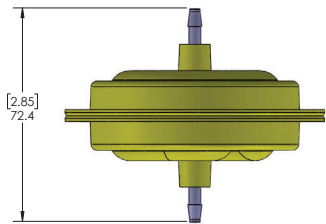


AVAILABLE WITH THIS UNIT

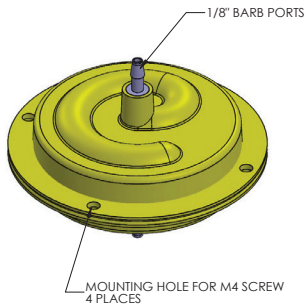


## DIMENSIONAL DRAWINGS

For reference only

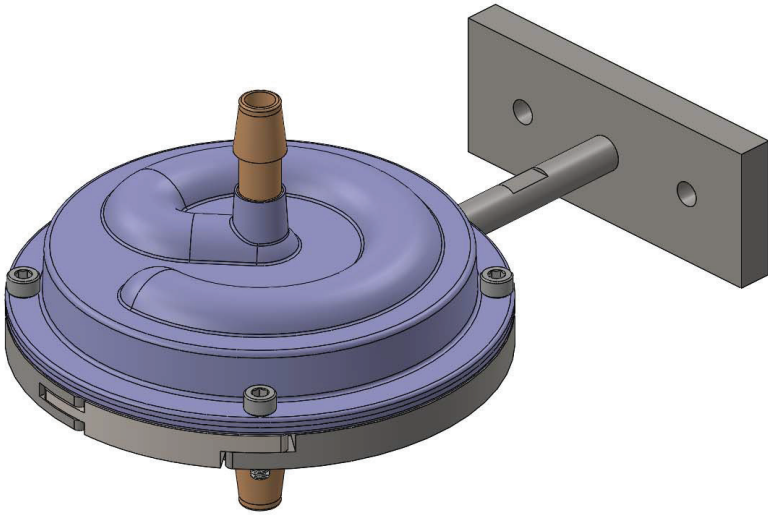


MALEMA PULSE DAMPENER - 1/16" and 1/8" PORT SIZE  
AVAILABLE WITH THIS UNIT

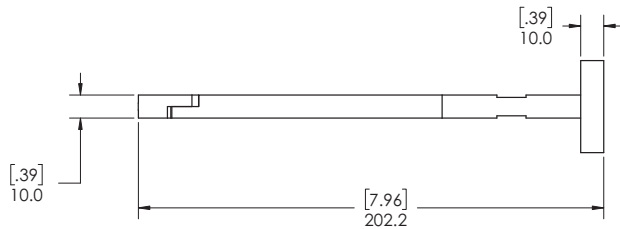
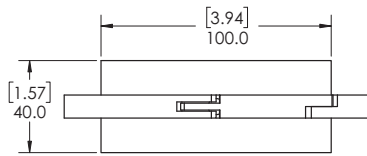
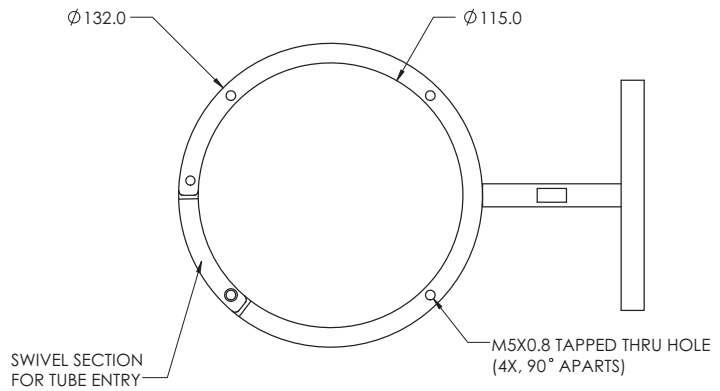
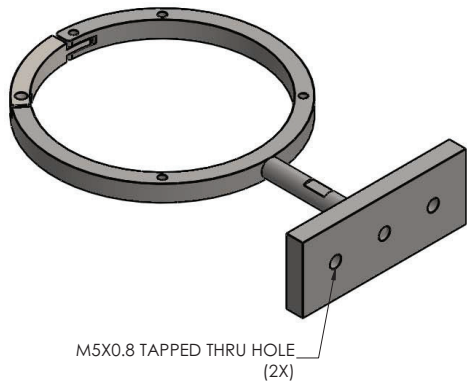


## DAMPENER HOLDER

Malema provides stainless-steel dampener holders to securely mount the dampener in place. Please see the example below for 1/4", 3/8" and 1/2" sizes.



THIS HOLDER CAN BE USED FOR 1/4", 3/8" AND 1/2" DAMPENERS



DIMS ARE IN MM [IN]

## ORDERING INFORMATION

Model Ordering Code for Dampener						Description	
DMP-7000	-	**	*	*	-	***	Single-use Fluid Dampener
	-						
Size (ID)	01						1/16
	02						1/8"
	04						1/4"
	06						3/8"
	08						1/2"
	12						3/4"
	16						1"
Fluid Connection	H						Hose Barb
	T						Tri-Clamp (Mini TC for fractional sizes)
Sterilization	0						No Sterilization
	1						Gamma Irradiated to 50 kGy. MOQ of 50 pieces
Unique Identifier	-					XXX	Assigned by Factory

Model Ordering Code for Holder						Description	
DMP-HOLDER-7000	-	**		-		***	Durable Dampener Holder
	-						
Size	02						1/16" - 1/8"
	08						1/4" - 1/2"
	16						3/4" - 1"
Unique Identifier	-					XXX	Assigned by Factory

DESIGN FOR LIFE



**WARNING:** The customer is solely responsible for determining the necessary or most suitable product or service for any particular use case or application. All such risks are assumed by the customer. Specifications subject to change without notice.

**WARRANTY:** For product warranty information, please contact: [info@cpc-bio.com](mailto:info@cpc-bio.com) or +1 800-519-7633.

For trademark information, please visit: [www.cpc-bio.com/trademarks-and-patents](http://www.cpc-bio.com/trademarks-and-patents)

© 2026 CPC BIOTECH. ALL RIGHTS RESERVED.  
FMS-DMP-SS-26001

**CPC BIOTECH | MALEMA**  
2329 Zanker Road  
San Jose, CA 95131  
Phone: +1 408-970-3419  
Email: [info@cpc-bio.com](mailto:info@cpc-bio.com)

[cpc-bio.com](http://cpc-bio.com)