



## Malema Sensors® Single-Use Pulsation Dampener DMP-7000 Series



### Installation and Operation Manual

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## Introduction

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

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

## Operating Specifications

<b>Model DMP-7000-</b>	
Operating Pressure	75 psig (5 bar) max.
Operating Temperature	40° C max.
Burst Pressure	90 psig (6 bar)

## Material Specifications

Model DMP-7000-	01	02	04	06	08	12	16	
Tube ID	1/16"	1/8"	1/4"	3/8"	1/2"	3/4"	1"	
Fluid Connection *	Hose barb, Mini TriClamp						Hose barb, TriClamp	
Wetted Materials	TPU, PEEK, Silicone. All wetted materials meet USP Class VI, USP 661.2, and USP 788 requirements							

\* Consult the factory for other types of process connection options.

## Pulsation Reduction

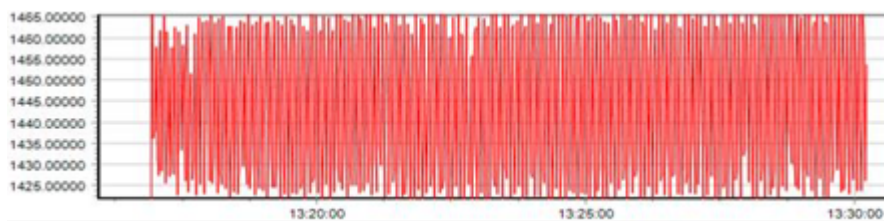


Figure 1. 1/4" ID fluid path with water, pumped using industry-standard diaphragm pump without dampener. The difference between min and max flow is approx. 40 g/min at 1445 g/min nominal flow rate

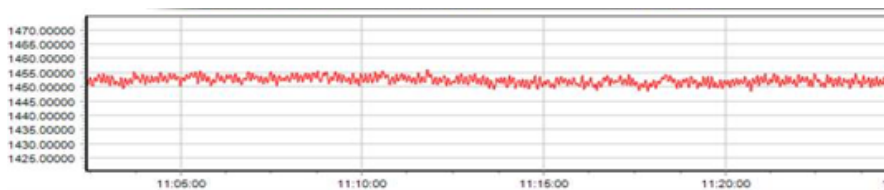


Figure 2. The same 1/4" ID fluid path with water, pumped the same industry-standard diaphragm pump with DMP-7000 installed between pump and flow meter. The difference between min and max flow is approx. 5 g/min at 1453 g/min nominal flow rate

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## Storage and Handling

### Storage conditions

Store the product under packed conditions in an anti-static bag. The storage place should be free from moisture, mechanical shock and vibration. The storage temperature should be between 10°C and 35°C and the humidity between 5% and 80% R.H. without condensation.

If the dampener has been gamma irradiated, do not open the inner bag until ready to install in the single-use assembly.

### Unpacking and Product Inspection

Upon delivery, inspect the product for damage. Confirm that the model code on the label matches the specification in the purchase order.

## Notice

This product should be installed and maintained by properly trained personnel only.

## Warnings

1. Do not exceed specified pressure and temperature ranges.
2. Chemical compatibility with the wetted materials must be confirmed by the end user.
3. Do not remove or open DMP-7000 while the system is operational or there is pressure in the line.

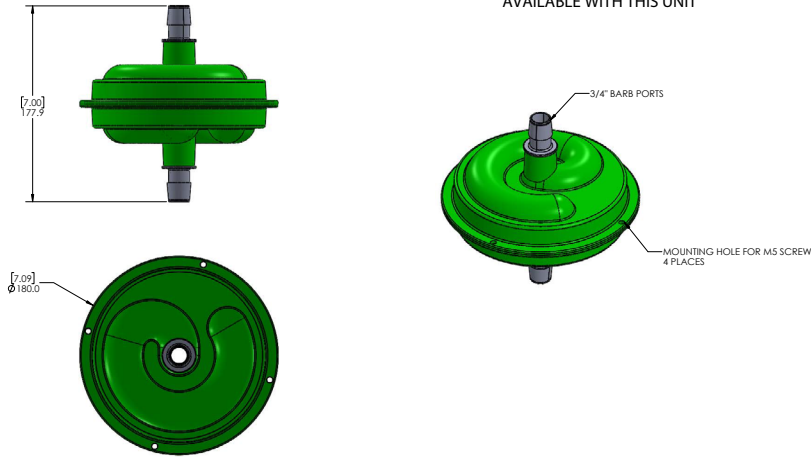
## Installation Instructions

The following considerations must be taken into account when installing the pulsation dampener.

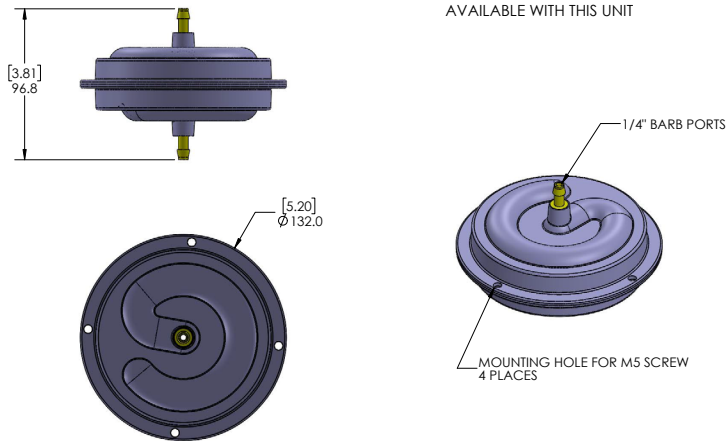
1. DMP-7000 must be installed downstream of the pump or other device causing fluid pulsation.
2. DMP-7000 must be installed upstream of any critical components
3. DMP-7000 must be installed in a vertical configuration with the fluid flowing upwards to avoid any air traps.
4. DMP-7000 must be installed in a properly mounted holder. For assemblies of a dampener integrated into a SumoFlo® Coriolis flow sensor, the SumoFlo® sensor must be installed in an approved mounting cradle or mounting flange. Consult Malema for more information.
5. DMP-7000 must be purged of all air prior to use.

**Dimensional Drawings**  
FOR REFERENCE ONLY

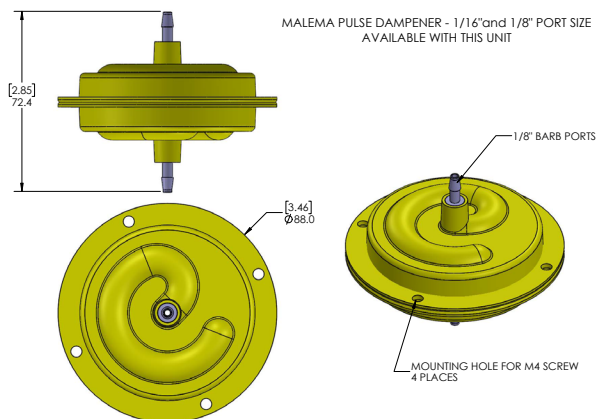
MALEMA PULSE DAMPENER - 1", 3/4" PORT SIZE  
AVAILABLE WITH THIS UNIT



MALEMA PULSE DAMPENER - 1/4", 3/8" and 1/2" PORT SIZE  
AVAILABLE WITH THIS UNIT



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



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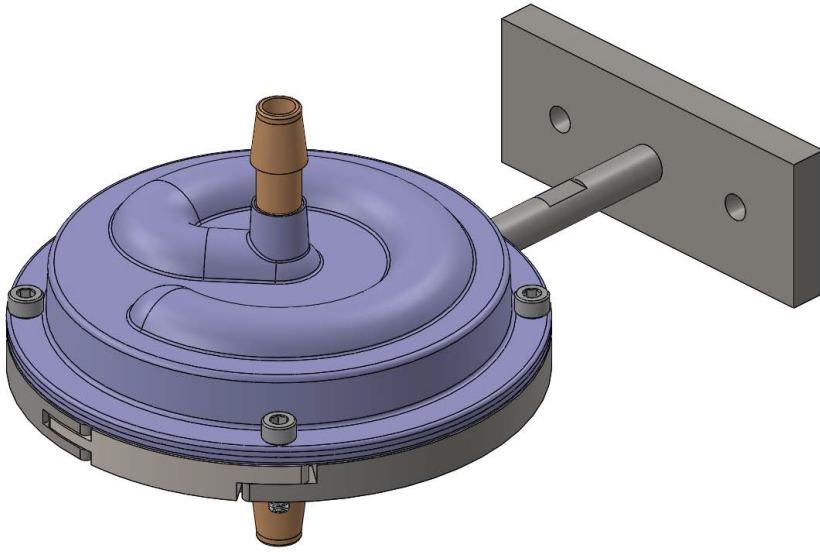
# DMP-7000

# SINGLE-USE PULSATION DAMPENER

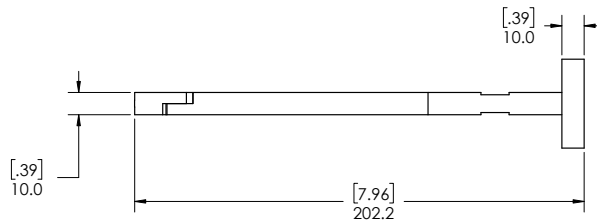
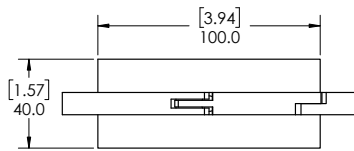
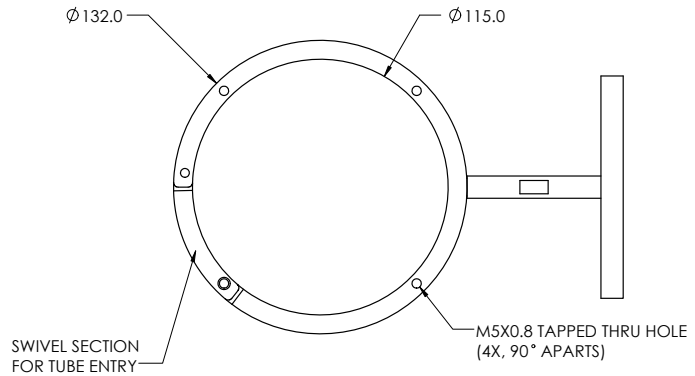
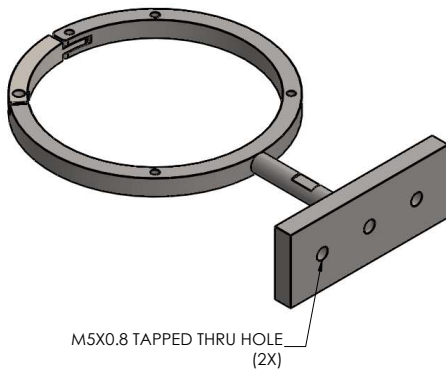
## Dampener Holder

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.

www.malema.com



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



DIMS ARE IN MM [IN]

IM.DMP7000/123020

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## 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

\* Available Q1 2021

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

\* Available Q1 2021

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## Service Contacts

For service support or technical assistance, please contact the Malema Engineering Corp. Technical Support Team at:

TEL: +1 (800) 637-6418

+1 (408) 970-3419

E-mail: [technicalsupport@malema.com](mailto:technicalsupport@malema.com)

## Service and Repair

To return the products, please obtain an RMA number for the product by contacting the Malema Sensors Life Sciences Division, San Jose, California, USA, at +1 (800) 637-6418 or +1 (408) 970-3419, or email [bio@malema.com](mailto:bio@malema.com).

Unless otherwise specified with the RMA number, all equipment must be returned to the following address:

Malema Sensors  
2329 Zanker Road  
San Jose, CA 95131, USA

Kindly note: Dampeners cannot be returned once exposed to gamma radiation.

## Warranty

Malema Sensors warrants to the buyer that its products are free from defects in materials and workmanship at the time of shipment and during the WARRANTY PERIOD. Malema Sensors's obligation under this warranty is limited to the replacement of the product(s) by same product(s) manufactured by Malema Sensors or repair of the product(s) at the Malema Sensors's facility.

Malema Sensors products are sold with the understanding that the buyer has determined the applicability of the product(s) to its intended use. It is the responsibility of the buyer to verify acceptability of performance to the actual conditions of use. Performance may vary depending upon these actual conditions.

### Warranty Period

This warranty is in effect for twelve (12) months from the date of shipment from Malema Sensors's place of business.

### Warranty Claim

If Malema Sensors® products are found to be defective in materials or workmanship within twelve (12) months of the date of shipment, they will be repaired or replaced with same product at the discretion of Malema Sensors at its place of business at no charge to the buyer.