

# COGNITO PULSATION DAMPENERS



Nearly surge-free flow



Maintain Steady Pressure



Reduced vibration

Proud Recipient of the Prestigious Awards

**Most Innovative Product Design** by

**Most Innovative Energy Saving Product** by

## Overview

Pulsation Dampener plays a very important role in Positive Displacement Pumps to reduce pulsations & vibrations during pump operation, thus ensuring continuous & precise non-pulsed flow rate. Cognito Dampeners are designed to provide vibration free smooth continuous flow that makes this component a suitable equipment for safeguarding the system.

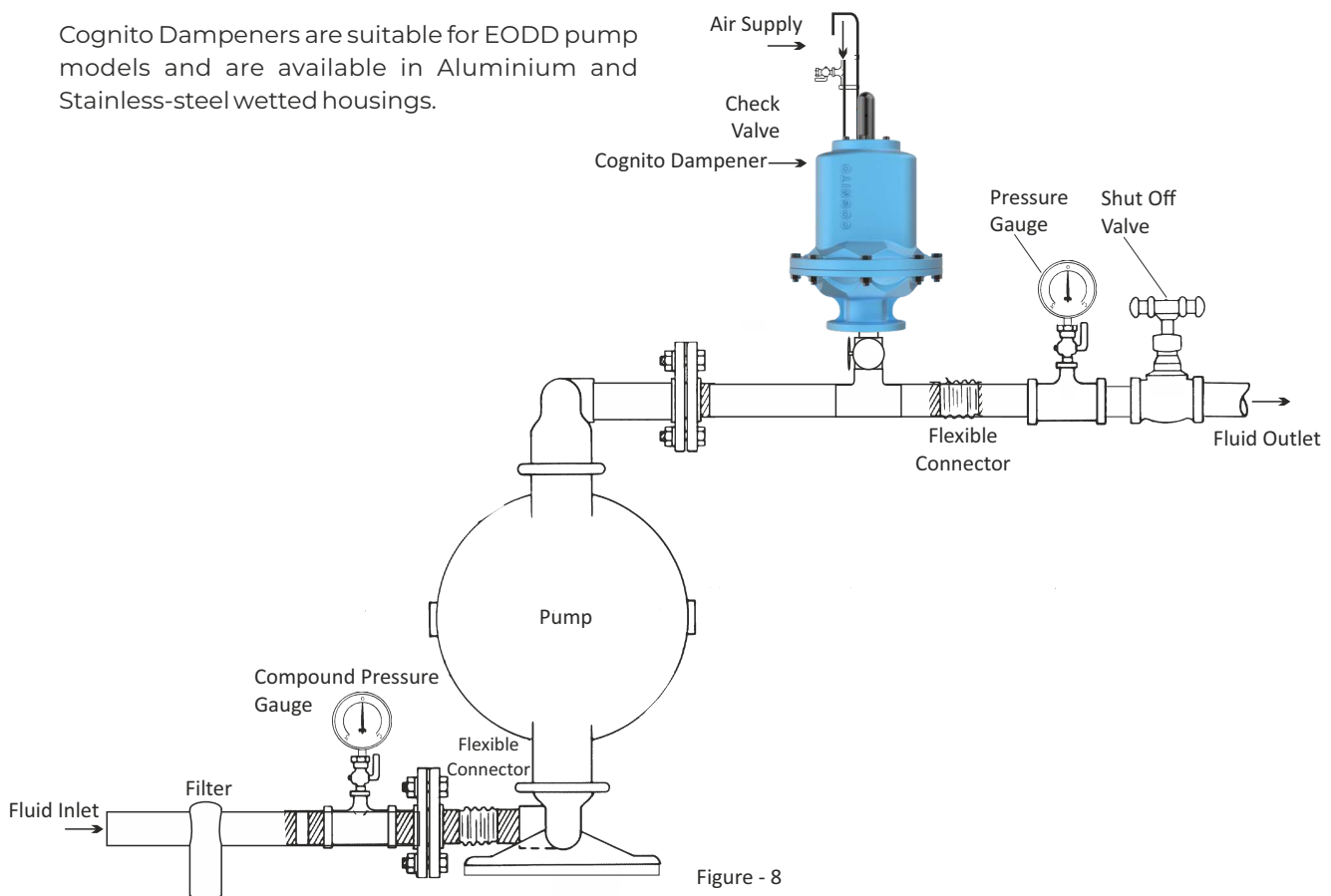
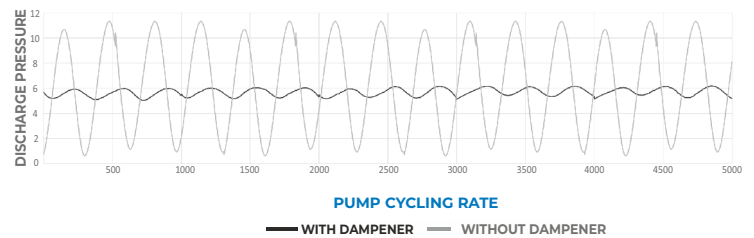
It maintains a constant volume of air support at diaphragm by automatically adjusting to the current pressure and thereby absorbing the pulse.

## Working Principle

A pulsation dampener uses a flexible diaphragm to separate a liquid chamber from a compressed air chamber. A rod connected to the centre of the diaphragm activates the air inlet and exhaust which automatically admits or exhausts air to the air chamber. This maintains the diaphragms in mid-range of stroke to eliminate flow pulsation & pressure spikes.

Cognito Dampeners are suitable for EODD pump models and are available in Aluminium and Stainless-steel wetted housings.

## PERFORMANCE: Dampening 90+% for all the sizes



## Features & Benefits

- Smooth Pulsation Free Flow
- Hassle Free Automatic Controlling
- Stabilizes Pressure
- Vibrations Free Pipes
- Compatible to Variable Pressure Application
- Help to Improve Pump Life

## Markets

- 1) Ceramic Tiles / Foundry & Refractory / Tableware & Insulators
- 2) Paint, Dye & Inks / Speciality Chemicals / Li-ion Battery
- 3) Cement / Water & Wastewater Treatment / Pulp & Paper
- 4) Pharma / Latex / Packaging

.....and many more industrial process involving reciprocating pumps.

## Technical Specification

Dampener Size	Compatible Pump Size	Air Inlet Size	Max. Pressure	Fluid Port
2"	1"	1/8" NPT	8 bar	2" 150# ANSI
	1.5"	1/8" NPT	8 bar	2" 150# ANSI
	2"	1/8" NPT	8 bar	2" 150# ANSI
3"	3"	1/8" NPT	8 bar	3" 150# ANSI
	4"	1/8" NPT	8 bar	3" 150# ANSI
WORKING AMBIENT TEMPERATURE			-20°C to +55°C	
OPERATING TEMPERATURE			-10°C to +90°C	

**Note:** Contact IDEX for Polypropylene Dampener

## Material of Construction

Size	Model Number	Wetted Parts	
		Body	Diaphragm
2"	2AS	Aluminium	Santoprene
	2AP	Aluminium	Santoprene Backup/PTFE
	2SS	Stainless Steel	Santoprene
	2SP	Stainless Steel	Santoprene Backup/PTFE
3"	3AS	Aluminium	Santoprene
	3AP	Aluminium	Santoprene Backup/PTFE
	3SS	Stainless Steel	Santoprene
	3SP	Stainless Steel	Santoprene Backup/PTFE

- Do Not Run the Dampener Without Air Supply
- Recommended Air Inlet Pressure : 1 bar Higher from the Discharge Pressure
- This Dampener is Automatic Air Controlling Type

## Material Profile:

**CAUTION!** Operating temperature limitations are as follows:

**SANTOPRENE®:** Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.

**VIRGIN PTFE:** Chemically inert, virtually impervious. Very few chemicals are known to chemically react with Teflon®, molten alkali metals, turbulent liquid or gases, fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen difluoride which readily liberate free fluorine at elevated temperatures.

**STAINLESS STEEL:** CF-8M equal to or exceeding ASTM specification A743 for corrosion resistant iron chromium, iron chromium nickel, and nickel based alloy castings for general applications. Commonly referred to as 316 Stainless Steel in the pump industry.

**Operating Temperatures**  
Max. Min.

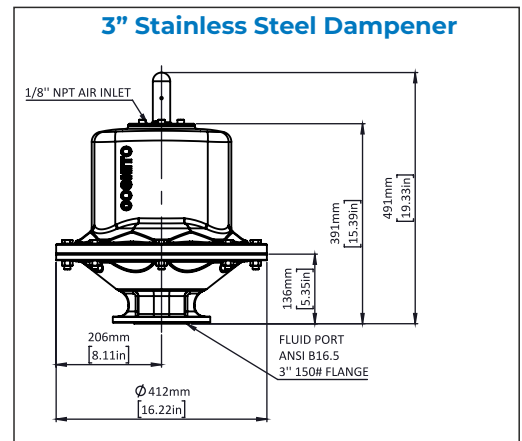
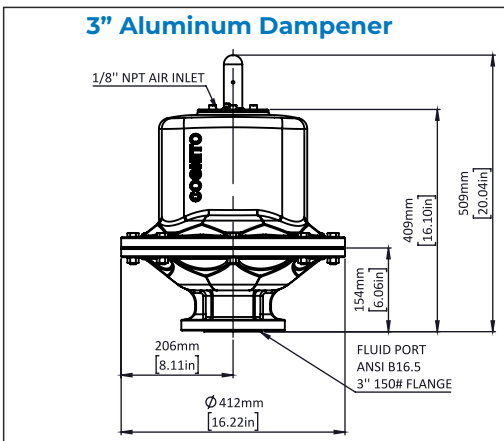
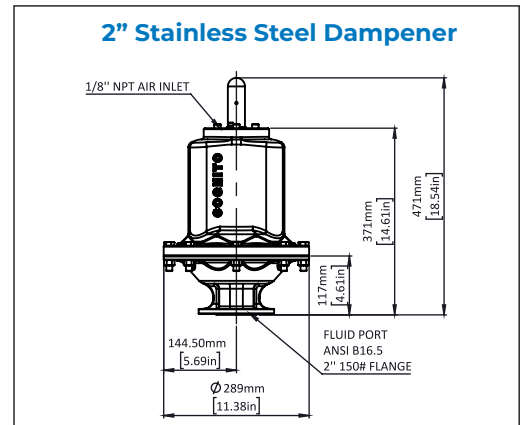
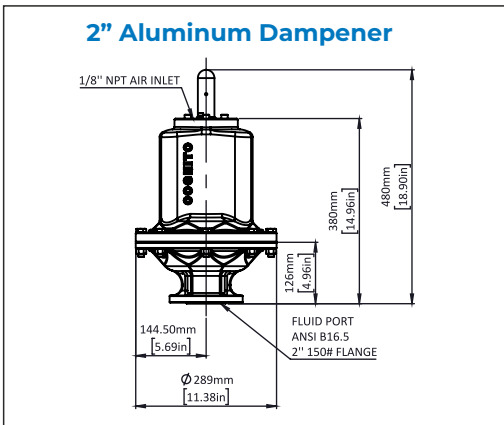
203°F -40°F  
95°C -40°C

220°F -35°F  
104°C -37°C

Maximum and Minimum Temperatures are the limits for which these materials can be operated. Temperatures coupled with pressure affect the longevity of diaphragm pump components.

Note : For specific applications, check the Chemical Resistance Chart, or Consult IDEX.

## Dimensional Drawing



ALL DIMENSIONS +/- 3mm [0.13in]

Distributed by:

Cognito Contact Details:  IDEXCOGNITO.com  [cognito@idexcorp.com](mailto:cognito@idexcorp.com)  +91-72289 22198






**Registered Office & Plant:**

**IDEX India Pvt. Ltd.**

Survey No. 256, GIDC Manjusar,  
Savli, Near Bombardier Circle,  
Distr. Vadodara - 391770, India

**Corporate Office:**

S14 Solitaire Corporate Park,  
167 Guru Hargovindji Road,  
Chakala, Andheri East,  
Mumbai - 400093, India

-  [www.idexindia.in](http://www.idexindia.in)
-  Toll free: 1800 267 9955
-  [info.fmt.idexcorp.com](mailto:info.fmt.idexcorp.com)

