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APD, BPD, CPD, DPD Series Pulsation Damper

Stainless Steel, up to 690 bar



ENGINEERING YOUR SUCCESS.

Description

Parker Pulsation Dampers are available in stainless steel (up to 690 bar) for applications demanding a stronger and more durable product.

Parker Pulsation Dampers are used to minimise pump pulses in systems with positive displacement pumps or other applications whereby a pulse is generated.

The Parker Accumulator Sizing Software is one of the most sophisticated simulation software programs available, allowing for temperature and flow characteristics, intuitive Windows format and easy to use! Download our sizing software from www.Parker.com/acde.



Stainless Steel Pulsation Damper

Features/Benefits

- **Cost Savings - Pulsation Dampers can reduce pipe work and instrumentation damage as they provide:**
 - **Removal of pressure spikes, Protection of pipe work and instrumentation, provision of continuous steady flow and reduction of system noise and cavitation.**
- **Accurate dispersal of pumped products**
- **Improved reliability and accuracy of system instrumentation**
- **International Certification**
- **Bespoke designs tailored to customer requirements**

Markets

- **Oil & Gas**
- **Industrial**
- **Industrial and Chemical Processing**

Applications

- **Dosing Pump Systems**
- **Chemical Injection Skids/Systems**
- **Test Equipment**



Markets & Applications

Ideal for Oil & Gas and Industrial installation

Oil & Gas

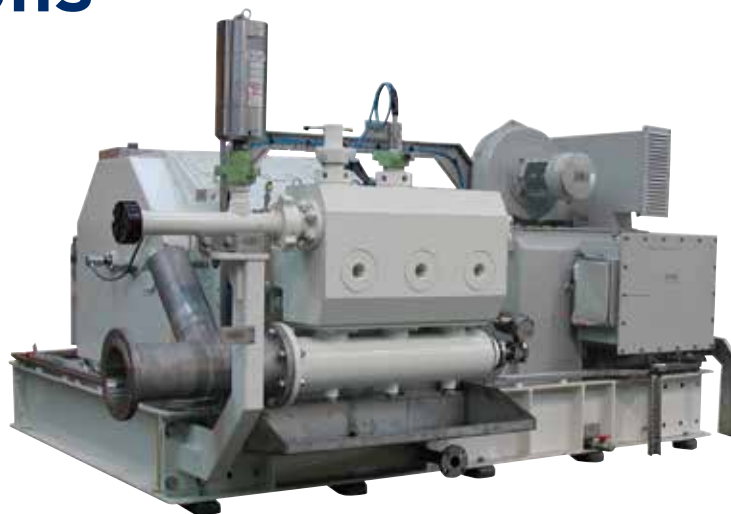
- Chemical Injection Skids/Systems

Industrial

- Test Equipment

Petrochemical

- Dosing Pump Systems



images courtesy of www.CalderLtd.com

Main Features

	Stainless Steel (316)* Pulsation Dampers	Polypropylene Pulsation Dampers
Maximum Pressure	690 bar **	10 bar
Maximum Volume	5 Litres	2 Litres ***
Design	PD55000 ASME VIII Div 1 ASME VIII Div 1 U Stamp	Sound Engineering Practice (SEP)
Flanged Options	Flanged options available	No flanged options available
Maintenance	Repairable	Non-repairable

* Other materials available on request e.g. duplex, super duplex, inconel.
 ** Higher pressures available on request
 *** Units up to 1 litre stocked as standard

Stainless Steel Pulsation Dampers

Main Features

1 Shell

CE certified in accordance with the PED (97/23/EC) where applicable. Manufactured from high grade 316 Stainless Steel, other materials available.

- Nominal capacities 0.1 litre to 5 litres.
- Working pressures of up to 690 bar, higher pressures available on request.
- Wide range of separator materials available
- Designed to PD5500 or ASME VIII Div 1.
- U Stamp is available as an option.

2 Label

Vessel information is stamped directly on shell. Stainless Steel nameplates are available at an extra cost.

3 Material Certification

Material certifications are available to EN10204 3.1 NACE MR0175 compliance is available on request.

4 Finish

Natural finish, unpainted as standard. Special paints available.

5 Fluid Port

A large variation of threaded or flanged options are available. For connection options please see page 149.

6 Safety

All gas-loaded pulsation dampers are pressurised vessels and it is recommended that safety consideration be given to the application in which they are used. A relief valve should always be fitted to the hydraulic system with the option of a burst disc to protect the pulsation damper. See Installation and Servicing data sheet for information regarding installation of pulsation damper.

7 Pressure Testing

A hydrostatic pressure test is carried out on all our pulsation dampers shells during the manufacturing process. We can carry out additional pressure testing witnessed by a specified Inspection Authority and/or customer as an optional extra if required.

We can also carry out a hydro-pneumatic pressure test on the complete assembly as an optional extra if required. Again this can be witnessed by a specified inspection authority and/or customer.

8 Accessories

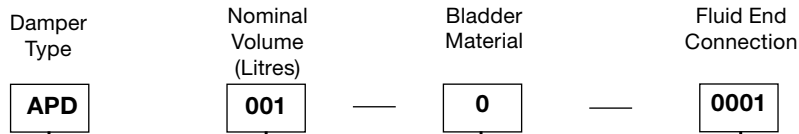
A complete range of damper charging equipment is available from Parker Olaer.

9 Spare Parts

Available on request.



Stainless Steel: How to order



Code: Type

- APD : Standard pressure
- BPD : High pressure
- CPD : ASME standard pressure
- DPD : ASME high pressure
- EPD : 'Special' alternative materials or high pressures
- CPDU: ASME U Stamped Standard Pressure
- DPDU: ASME U Stamped High Pressure

Code: Litres

- 001 : 0.1
- 025 : 0.25
- 050 : 0.5
- 100 : 1
- 200 : 2
- 300 : 3
- 500 : 5

Code: Material

- 0 : Nitrile (NBR)
- A : EPDM
- 6 : Viton (FKM)

Other bladder materials are available on request

Code: Fluid end connection

- 0001 : 1/2" BSP (F)
- 0002 : 3/4" BSP (F)
- 0003 : 1" BSP (F)
- 0004 : 1 1/2" BSP (F)
- 0005 : 1/2" NPT (F)
- 0006 : 2" BSP (F)
- 0007 : 3/4" NPT (F)
- 0024 : 1" NPT (F)
- 0026 : 1/4" NPT(F)
- 0042 : 2" NPT(F)
- 0012 : 3/8" NPT(F)

- 0010 : 1/2" 150 lb R/F Flange
- 0011 : 1" 150 lb R/F Flange
- 0012 : 1/2" 300 lb R/F Flange
- 0013 : 1" 300 lb R/F Flange
- 0016 : 2" 150 lb R/F Flange
- 0032 : 2" 300 lb R/F Flange
- 0070 : 1/2" 1500LB RTJ Flange
- 0072 : 1" 1500LB RTJ Flange
- 0088 : 1/2" 2500lb RTJ Flange

Other thread and flange options available on request



Capacities and Dimensions

APD Range (PD5500)

	Volume (litres)						
	0.1	0.25	0.5	1	2	3	5
Height (mm)	200	220	242	270	405	425	437
Outside Diameter (mm)	60	76	94	127	127	153	170
Weight (kg)	2.7	4.5	7.4	15	20	31	33
Design Pressure (bar)	350	300	250	180	180	250	120

BPD Range (PD5500)

	Volume (litres)						
	0.1	0.25	0.5	1	2	3	5
Height (mm)	215	236	272	290	426	448	472
Outside Diameter (mm)	76	102	127	146	146	170	190
Weight (kg)	5.4	12	21	27	37	52	55
Design Pressure (bar)	690	690	690	450	450	430	300

CPD Range (ASME VIII Div 1)*

	Volume (litres)						
	0.1	0.25	0.5	1	2	3	5
Height (mm)	200	220	242	270	405	425	437
Outside Diameter (mm)	60	76	94	127	127	153	170
Weight (kg)	2.7	4.5	7.4	15	20	31	33
Design Pressure (bar)	300	250	170	140	140	120	95

DPD Range (ASME VIII Div 1)*

	Volume (litres)						
	0.1	0.25	0.5	1	2	3	5
Height (mm)	215	236	272	290	426	448	472
Outside Diameter (mm)	76	102	127	146	146	170	190
Weight (kg)	5.4	12	21	27	37	52	55
Design Pressure (bar)	460	420	400	350	350	300	207



Note: Dimensions are based on current stock and are subject to change without prior notice.

- *'U' Stamp options are also available at extra cost. Request price if required.
- APD/CPD models have brass gas valves
- BPD/DPD models have stainless steel gas valves

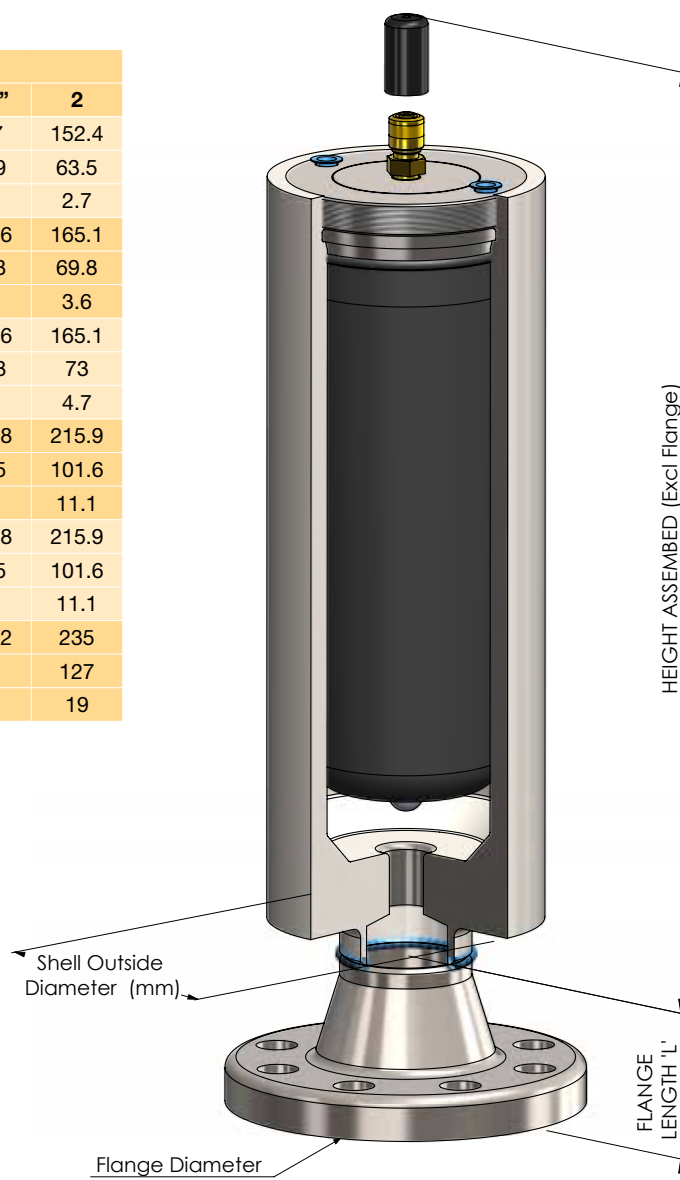
Flanged Fluid End Options

Dimensions (mm)		Nominal Flange Sizes					
		½"	¾"	1"	1 ¼"	1 ½"	2"
150lb	Diameter	88.9	98.4	107.9	117.5	127	152.4
	Length "L"	47.6	52.4	55.6	57.1	61.9	63.5
	Weight (kg)	0.5	0.7	1.1	1.5	1.8	2.7
300lb	Diameter	95.2	117.5	123.8	133.4	155.6	165.1
	Length "L"	52.4	57.1	61.9	65.1	68.3	69.8
	Weight (kg)	0.8	1.3	1.7	2.2	3.2	3.6
600lb	Diameter	95.2	117.5	123.8	133.4	155.6	165.1
	Length "L"	52.4	57.1	61.9	66.7	69.8	73
	Weight (kg)	0.9	1.5	1.9	2.6	3.3	4.7
900lb	Diameter	120.6	130.2	149.2	158.7	177.8	215.9
	Length "L"	60.3	69.8	73	73	82.5	101.6
	Weight (kg)	1.9	2.6	3.8	4.4	6.1	11.1
1500lb	Diameter	120.6	130.2	149.2	158.7	177.8	215.9
	Length "L"	60.3	69.8	73	73	82.5	101.6
	Weight (kg)	1.9	2.6	3.8	4.4	6.1	11.1
2500lb	Diameter	133.3	139.7	158.8	184.2	203.2	235
	Length "L"	73	79	89	95	111	127
	Weight (kg)	3.6	4.1	5.9	9	13	19

Note: In most cases the fitting of a flange will de-rate the design pressure of the damper if in any doubt please refer to flange specification ANSI B16.5 for the maximum working pressures.

These dimensions and weights are to be added to the damper dimensions if a flange is required.

Note: Dimensions are based on current stock and are subject to change without prior notice.



Pulsation damper APD Series

Standard version (Stainless **Steel** shell). According to PED 2014/68/EU

Product , Part numbers, Accessories

Standard pressure with brass gas valve

Volume (L)	Type	Connection	Nitrile Version	EPDM Version	Viton Version
			Part Number	Part Number	Part Number
0.1	PULSATION DAMPER 0.1L 1/2BS	1/2" BSP (F)	APD001-0-0001	APD001-A-0001	APD001-6-0001
	PULSATION DAMPER 0.1L 1/2N	1/2" NPT (F)	APD001-0-0005	APD001-A-0005	APD001-6-0005
	PULSATION DAMPER 0.1L 3/4B	3/4" BSP (F)	APD001-0-0002	APD001-A-0002	APD001-6-0002
	PULSATION DAMPER 0.1L 3/8" NPT	3/8" NPT (F)	APD001-0-0112	APD001-A-0112	APD001-6-0112
	PULSATION DAMPER 0.1L 1/2B	1/2" BSP (F)	APD001-0-0215	APD001-A-0215	APD001-6-0215
	PULSATION DAMPER 0.1L	1/2" NPT (F)	APD001-0-0005EX	APD001-A-0005EX	APD001-6EX
	PULSATION DAMPER 0.1L 1/2"	1/2" 150LB RF	APD001-0-0010Ex	APD001-A-0010Ex	APD001-6-0010Ex
	PULSATION DAMPER 0.1L 1/2"	1/2" 2500LB RF	APD001-0-0239	APD001-A-0239	APD001-6-0239
	PULSATION DAMPER 0.1L 3/4"	3/4" NPT (F)	APD001-0-0332	APD001-A-0332	APD001-6-0332
	PULSATION DAMPER 0.1L 3/8"	3/8" NPT (F)	APD001-0-0333	APD001-A-0333	APD001-6-0333
	SPARES PARTS 0.1L		APD001-0-EX	APD001-AEX	APD001-6EX
	BLADDER KIT 0.1L		APD001-0	APD001-A	APD001-6
	0.25	PULSATION DAMPER 0.25L 1/2	1/2" BSP (F)	APD025-0-0001	APD025-A-0001
PULSATION DAMPER 0.25L 1/2		1/2" NPT (F)	APD025-0-0005	APD025-A-0005	APD025-6-0005
PULSATION DAMPER 0.25L EX		1/2" NPT (F)	APD025-0-0005EX	APD025-A-0005EX	APD025-6-0005EX
PULSATION DAMPER 0.25L 1" 2500		1" 2500LB RTJ	APD025-0-0064	APD025-A-0064	APD025-6-0064
PULSATION DAMPER 0.25L 1/2" 2500		1/2" 2500LB RTJ	APD025-0-0088	APD025-A-0088	APD025-6-0088
PULSATION DAMPER 0.25L 3/4		3/4" NPT (F)	APD025-0-0332	APD025-A-0332	APD025-6-0332
PULSATION DAMPER 0.25L 3/8" NPT		3/8" NPT (F)	APD025-0-0112	APD025-A-0112	APD025-6-0112
PULSATION DAMPER 0.25L 1/2		1/2" NPT (F)	APD025-0-0331	APD025-A-0331	APD025-6-0331
SPARES KIT 0.25L ATEX			APD025-0Ex	APD025-AEX	APD025-6Ex
BLADDER KIT 0.25L			APD025-0	APD025-A	APD025-6
0.5	PULSATION DAMPER 0.5L 3/4"	3/4" NPT (F)	APD050-0-0332	APD050-A-0332	APD050-6-0332
	PULSATION DAMPER 0.5L 1"BS	1" BSP (F)	APD050-0-0003	APD050-A-0003	APD050-6-0003
	PULSATION DAMPER 0.5L 1/2B	1/2" BSP (F)	APD050-0-0001	APD050-A-0001	APD050-6-0001
	PULSATION DAMPER 0.5L 3/4BS	3/4" BSP (F)	APD050-0-0002	APD050-A-0002	APD050-6-0002
	PULSATION DAMPER 0.5L 1/2N	1/2" NPT (F)	APD050-0-0005	APD050-A-0005	APD050-6-0005
	PULSATION DAMPER 0.5L 1"NPT FE	1" NPT (F)	APD050-0-0024	APD050-A-0024	APD050-6-0024
	PULSATION DAMPER 0.5L 1/4" NPT	1/4" NPT (F)	APD050-0-0026	APD050-A-0026	APD050-6-0026
	PULSATION DAMPER 0.5L 1"BS	1" BSP (F)	APD050-0-0003EX	APD050-A-0003EX	APD050-6-0003EX
	PULSATION DAMPER 0.5L 3/4" NPT	3/4" NPT (F)	APD050-0-0007EX	APD050-A-0007EX	APD050-6-0007EX
	0.5L APD SPARES - VITON - ATEX		APD050-0EX	APD050-AEX	APD050-6EX
	BLADDER KIT 0.5L		APD050-0	APD050-A	APD050-6

Volume (L)	Type	Connection	Nitrile Version	EPDM Version	Viton Version
			Part Number	Part Number	Part Number
1	PULSATION DAMPER 1.1L 3/4"	3/4" NPT (F)	APD100-0-0332	APD100-A-0001	APD100-6-0332
	PULSATION DAMPER 1.0L 1/2B	1/2" BSP (F)	APD100-0-0001	APD100-A-0003	APD100-6-0001
	PULSATION DAMPER 1.0L 1"BSP	1" BSP (F)	APD100-0-0004	APD100-A-0004	APD100-6-0004
	PULSATION DAMPER 1.0L 1/2N	1/2" NPT (F)	APD100-0-0005	APD100-A-0005	APD100-6-0005
	PULSATION DAMPER 1.0L 3/4N	3/4" NPT (F)	APD100-0-0007	APD100-A-0007	APD100-6-0007
	PULSATION DAMPER 1.0L 1"	1" NPT (F)	APD100-0-0024	APD100-A-0024	APD100-6-0024
	PULSATION DAMPER 1.0L 1/2"	1/2" 300 LB RF	APD100-0-0012	APD100-A-0012	APD100-6-0012
	BLADDER KIT 1.0L		APD100-0	APD100-A	APD100-6
2	PULSATION DAMPER 2.0L 1"BS	1" BSP (F)	APD200-0-0003	APD200-A-0003	APD200-6-0003
	PULSATION DAMPER 2.0L 2"BS	2" BSP (F)	APD200-0-0006	APD200-A-0006	APD200-6-0006
	PULSATION DAMPER 2.0L 3/4N	3/4" NPT (F)	APD200-0-0007	APD200-A-0007	APD200-6-0007
	PULSATION DAMPER 2.0L VITON 1"	1" NPT (F)	APD200-0-0024	APD200-A-0024	APD200-6-0024
	PULSATION DAMPER 2L 3/4"NP	3/4" NPT (F)	APD200-0-0332	APD200-A-0332	APD200-6-0332
	PULSATION DAMPER 2L 1"NPT	1" NPT (F)	APD200-0-0334	APD200-A-0334	APD200-6-0334
	PULSATION DAMPER 2L 2" 150	2" 150LB RF	APD200-0-0336	APD200-A-0336	APD200-6-0336
	PULSATION DOMPER,2L 1 1/4" BSP	1 1/4" BSP (F)	APD200-0-0343	APD200-A-0343	APD200-6-0343
	PULSATION DAMPER 2L, 1 1/2"	1 1/2" 1500LB RF	APD200-0-0113	APD200-A-0113	APD200-6-0113
	BLADDER KIT 2.0L		APD200-0	APD200-A	APD200-6
3	PULSATION DAMPER 3.0L 2"BS	2" BSP (F)	APD300-0-0006	APD300-A-0006	APD300-6-0006
	PULSATION DAMPER 3.0L 1"	1" NPT (F)	APD300-0-0024	APD300-A-0024	APD300-6-0024
	PULSATION DAMPER 3L 11/2"	1 1/2" 1500LB RF	APD300-0-0335	APD300-A-0335	APD300-6-0335
	PULSATION DAMPER 3L 1"NPT	1" NPT (F)	APD300-0-0334	APD300-A-0334	APD300-6-0334
	PULSATION DAMPER 3L 1 1/4"	1 1/4" BSP (F)	APD300-0-0020	APD300-A-0020	APD300-6-0020
	BLADDER KIT 3.0L		APD300-0	APD300-A	APD300-6
5	PULSATION DAMPER 5.0L 2"BS	2" BSP (F)	APD500-0-0006	APD500-A-0032	APD500-6-0032
	PULSATION DAMPER 5.0L 2"300	1 1/2" BSP (F)	APD500-0-0004	APD500-A-0004	APD500-6-0004
	PULSATION DAMPER 5L 1"NPT	1" NPT (F)	APD500-0-0334	APD500-A-0334	APD500-6-0334
	PULSATION DAMPER 5L, 6" IN LINE	6" 150LB RF IN-LINE	APD500-0-0202	APD500-A-0202	APD500-6-0202
	BLADDER KIT 5.0L		APD500-0	APD500-A	APD500-6

Pulsation damper BPD Series

Standard version (Stainless **Steel** shell). According to PED 2014/68/EU

Product , Part numbers, Accessories

High Pressure with the steel gas valve

Volume (L)	Type	Connection	Nitrile Version	EPDM Version	Viton Version
			Part Number	Part Number	Part Number
0.1	PULSATION DAMPER 0.1L	1/2" BSP (F)	BPD001-0-0001		
	PULSATION DAMPER 0.1L	1/2" NPT (F)	BPD001-0-0005EX		
	PULSATION DAMPER 0.1L	1/4" BSP (F)	BPD001-0-0107		
	PULSATION DAMPER 0.1L	1/2" NPT			BPD001-6-0005
	0.1L BPD SPARES- BLADDER KIT 0.1L			BPD001-0	BPD001-A
0.25	PULSATION DAMPER 0.25L	1/2" BSP (F)	BPD025-0-0001		
	PULSATION DAMPER 0.25L	1/2" NPT (F)			BPD025-6-0005
	BLADDER KIT 0.25L		BPD025-0	BPD025-A	BPD025-6
	PULSATION DAMPER 0.25L 1/2"	1/2" 2500LB RTJ			BPD025-6-0327
0.5	PULSATION DAMPER 0.5L 1/2"	1/2" BSP (F)	BPD050-0-0001		
	PULSATION DAMPER 0.5L 3/4"	3/4" BSP (F)	BPD050-0-0002		
	PULSATION DAMPER 0.5L 3/8"	1/2" NPT (F)	BPD050-0-0005	BPD050-A-0005	BPD050-6-0005
	PULSATION DAMPER 0.5L 3/4"	3/4" NPT (F)	BPD050-0-0007		
	PULSATION DAMPER 0.5L	1/2" NPT (F)	BPD050-0-0005EX		
	PULSATION DAMPER 0.5L	3/4" NPT (F)	BPD050-0-0007EX		
	PULSATION DAMPER 0.5L 3/4	1/4" NPT (F)	BPD050-0-0026EX		
	PULSATION DAMPER 0.5L	1/2" NPT (F)	BPD050-0-0331		
	PULSATION DAMPER 0.5L 1/2		BPD050-0-0332		
BLADDER KIT 0.5L		BPD050-0	BPD050-A	BPD050-6	
1	PULSATION DAMPER 1,0L 3/4"	1" BSP (F)	BPD100-0-0003		
	PULSATION DAMPER 1,0L	1/2" NPT (F)	BPD100-0-0005		BPD100-6-0005
	PULSATION DAMPER 1,0L	3/4" NPT (F)	BPD100-0-0007		
	PULSATION DAMPER 1,0L	1" NPT (F)			BPD100-6-0024
	PULSATION DAMPER 1,0L	1/2" NPT (F)	BPD100-0-0331		
	BLADDER KIT 1,0L		BPD100-0		BPD100-6
2	PULSATION DAMPER 2,0L	1 1/4" BSP (F)	BPD200-#-0234		
	PULSATION DAMPER 2,0L	1/2" BSP (F)	BPD200-0-0001		
	PULSATION DAMPER 2,0L	1" BSP (F)	BPD200-0-0003	BPD200-A-0003	
	PULSATION DAMPER 2,0L	1/2" NPT (F)	BPD200-0-0005		
	PULSATION DAMPER 2,0L 3/4"	3/4" NPT (F)	BPD200-0-0007		
	PULSATION DAMPER 2.0 L	3/4" NPT (F)			BPD200-6-0007EX
	PULSATION DAMPER 2,0L	1" NPT (F)			BPD200-6-0024
	PULSATION DAMPER 2,0L	3/4" NPT (F)	BPD200-0-0332		
	PULSATION DAMPER 2,0L	1/2" NPT (F)	BPD200-0-0335		
	PULSATION DAMPER 2,0L	1 1/2" 2500LB RTJ	BPD200-0-0337		
	PULSATION DAMPER 2,0L	1 1/2"	BPD200-0-0349		
BLADDER KIT 2,0L		BPD200-0	BPD200-A	BPD200-6	

Volume (L)	Type	Connection	Nitrile Version	EPDM Version	Viton Version
			Part Number	Part Number	Part Number
3	PULSATION DAMPER 3.0L	1" BSP (F)	BPD300-0-0003	BPD300-A-0003	BPD300-6-0096
	PULSATION DAMPER 3.0L	1/2" NPT (F)	BPD300-0-0005		
	PULSATION DAMPER 3,0L 3/4"NP	3/4" NPT (F)	BPD300-0-0007		
	PULSATION DAMPER 3.0L 2" 2500 RF	2" 2500LB RF			
	PULSATION DAMPER 3,0L 1"NPT	3/4" NPT (F)	BPD300-0-0332		
	PULSATION DAMPER 3,0L 1"BSP			BPD300-A-0347	
	BLADDER KIT 3,0L		BPD300-0		
5	BLADDER KIT 5,0L		BPD500-0		

