

ACCU-PULSE

Pulsation Dampeners

(Chargeable-Adjustable)

03/24
Rev. 1

2024 USA Price List

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e.g.: Part # **API-PVC-E-1-F**

AP - I - PVC - E - 1 - F

ACCU-PULSE

AP = Standard 150/300 PSIG
 APH = High Pressure 1000/600 PSIG
 APX = High Pressure 4000 PSIG

Series:

I = 10 cu in capacity
 IF = 4 cu in capacity
 II = 85 cu in capacity
 IIF = 36 cu in capacity
 III = 370 cu in capacity
 IIIF = 175 cu in capacity
 IV = 1155 cu in capacity (AP only)
 8 = 8 cu in capacity **x**
 12 = 12 cu in capacity **x**
 16 = 16 cu in capacity **x**
 24 = 24 cu in capacity **x**

Body Material:

PP = Polypropylene
 PVC = Polyvinyl Chloride
 PVDF = Polyvinylidene Fluoride
 S/S = 316 Stainless Steel ~
 ALL20 = Alloy 20 \emptyset
 HAST = Hastelloy C
 CS = Carbon Steel Δ
 CPVC = Chlorinated Polyvinyl Chloride*
 *(not Corzan)

Optional:

Add suffix
 -B for BSPT Conn.
 -F for Flanges (ANSI)
 -FD for Flanges (DIN)
 -SW for Socketweld Conn.

Size:

0 = 3/8" npt(f) series I Std Metal
 1 = 1/2" npt(f) series I Std Plastic
 2 = 3/4" npt(f) series II (Std) All
 3 = 1" npt(f) series II (Optional)
 4 = 2" npt(f) series III
 5 = 3" Flanged series IV
 6 = 4" Flanged series IV

Bellows Material:

N = Neoprene S = Santoprene
 B = Buna-N ~ SF = Silicone
 H = Hypalon BF = Buna-N
 E = EPDM (Nordel) ~ PF = PTFE
 V = Viton ~ EF = EPDM
 T = PTFE

~ Available in the APX Series
 316 Stainless Steel
 1/2" npt (f)
 Bellows Material - B, E, V

x Available in APX only
 \emptyset NOT Available in IV only
 Δ NOT Available in III & IIIF only

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Manufactured by:



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Call Toll Free 1-800-776-6580

ACCU-PULSE Pulsation Dampener Sizing Guide

The following formula sizes pulsation dampeners for use on diaphragm, piston and plunger type metering pumps.

Information Required for Sizing:

- V** = volume per pump stroke in cubic inches
- K** = type of pump (K factor)
- P** = mean operating pressure
- D** = allowable pressure fluctuation as a percentage (+/- from mean)
Typical is 5% (in decimal form 0.05)
- n** = exponent for type of gas used (Nitrogen = 0.714; Air = 1.0)

Formula #1: Calculated V (Volume per stroke calculations:)

$$\frac{\text{gallons per hour}}{60 \text{ minutes}} = \text{gallons per minute}$$

$$\frac{\text{gallons per minute}}{\text{strokes per minute}} = \text{gallons per stroke}$$

$$V = \text{cubic inch per stroke} = \text{Gallons per stroke} \times 231$$

Formula #2: Optional calculation for Piston metering pump

$$\text{cubic inch per stroke} = .7854 \times (\text{inch bore diameter})^2 \times \text{inch stroke length}$$

Formula #3: Calculated P (mean operating pressure)

Desired pressure fluctuations

$$\text{Minimum Pressure } P_{\min} = P - (P \times D)$$

$$\text{Maximum Pressure } P_{\max} = P + (P \times D)$$

Chart #4: K Type of Pump

	Single Acting	Double Acting
Simplex	.60 (most common)	.25
Duplex	.25	.15
Triplex	.13	.06
Quadruplex	.10	.06

Formula #5:

Cubic inch size required

$$\text{Cubic inch req'd} = \frac{V \times K (P/P_{\min})^n}{1 - (P/P_{\max})^n}$$

Example:

Application flow rate:

90 gallons per hour @ 144 strokes per minute

K = 0.60 K factor of pump use **Chart 4**

P = 100 PSI Operating pressure

D = 5% = 0.05 Pressure fluctuation

Step 1:

Calculate V = cubic inches per stroke using

$$\text{Formula \#1: } = \frac{90 \text{ gallons per hour}}{60 \text{ minutes}}$$

$$= 1.5 \text{ GPM}$$

$$= \frac{1.5 \text{ GPM}}{144 \text{ SPM}}$$

$$= 0.01042 \text{ gallons per stroke}$$

$$V = 0.01042 \times 231 = 2.41 \text{ cubic inch per stroke}$$

Step 2:

Calculate P = pressure fluctuations using

Formula #3:

$$\begin{aligned} \text{Minimum pressure } P_{\min} &= P - (P \times D) \\ &= 100 - (100 \times 0.05) \\ &= 100 - 5 \\ P_{\min} &= 95 \end{aligned}$$

$$\begin{aligned} \text{Maximum pressure } P_{\max} &= P + (P \times D) \\ &= 100 + (100 \times 0.05) \\ &= 100 + 5 \\ P_{\max} &= 105 \end{aligned}$$

Step 3:

Calculate Cubic Inch required using

Formula #5:

$$= \frac{2.41 \times 0.6 (100/95)^1}{1 - (100/105)^1}$$

$$= \frac{2.41 \times 0.6 \times 1.0526}{1 - 0.9524}$$

$$= \frac{1.522}{0.0476}$$

Final Size = 32 cubic inches required

ACCU-PULSE I

Pulsation Dampeners

ACCU-PULSE Series I (Chargeable-Adjustable)

- 150 PSI rated (metal chargeable 300 PSI rated)
- 10 cu. in capacity
- ½" NPT bottom connection (STD on Plastic Units)
- ¾" NPT bottom connection (STD on Metallic units)

Body Material

CODE A

PP - Polypropylene		PVC - Polyvinyl Chloride		PVDF - Polyvinylidene Fluoride		CPVC - Chlorinated Polyvinyl Chloride	
Model API-PP- * -1 150 PSI rated		Model API-PVC- * -1 150 PSI rated		Model API-PVDF- * -1 150 PSI rated		Model API-CPVC- * -1 150 PSI rated (<i>not Corzan</i>)	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
		N	\$ 322.00			N	\$ 322.00
		B	\$ 331.00			B	\$ 343.00
		H	\$ 358.00			H	\$ 372.00
E	\$ 484.00	E	\$ 336.00	E	Call Factory	E	\$ 346.00
V	\$ 560.00	V	\$ 413.00	V	Call Factory	V	\$ 423.00
		T	\$ 752.00			T	\$ 751.00

Flanged Options

½" 150# Raised Face Flange inlet for PVC

Add suffix -F

List adder
\$ 101.00

Body Material

CODE A

316 Stainless Steel		Alloy 20		Hastelloy C		316 Stainless Steel	
Model API-S/S- * -0 150/300 PSI rated		Model API-ALL20- * -0 150/300 PSI rated		Model API-HAST- * -0 150/300 PSI rated		Model APHI-S/S - * -0 1000 PSI rated	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	Call Factory	N	Call Factory	N	Call Factory	N	Call Factory
B	Call Factory	B	Call Factory	B	Call Factory	B	Call Factory
H	Call Factory	H	Call Factory	H	Call Factory	H	Call Factory
E	Call Factory	E	Call Factory	E	Call Factory	E	Call Factory
V	Call Factory	V	Call Factory	V	Call Factory	V	Call Factory
»T	Call Factory	»T	Call Factory	»T	Call Factory	»T	N/A
»150 PSI max							

Flanged Options

- ½" 150# Raised Face Flange inlet for stainless
- ½" 150# Raised Face Flange inlet for Alloy 20
- ½" 150# Raised Face Flange inlet for Hastelloy C
- For ½" npt connection (Metallic units only)

- Add suffix -F
- Add suffix -F
- Add suffix -F
- Add suffix -1

List adder
Call Factory
Call Factory
Call Factory
Call Factory

Replace * with Bellows Material "letter" to complete model code for correct material of construction.

ACCU-PULSE IF Pulsation Dampeners

ACCU-PULSE Series IF (Chargeable-Adjustable)

- 150 PSI rated (metal chargeable 300 PSI rated)
- 4 cu. in capacity
- ½" NPT bottom connection (STD on Plastic Units)
- ¾" NPT bottom connection (STD on Metallic units)

Body Material

CODE A

PP - Polypropylene		PVC - Polyvinyl Chloride		PVDF - Polyvinylidene Fluoride		CPVC - Chlorinated Polyvinyl Chloride	
Model APIF-PP- * -1 150 PSI rated		Model APIF-PVC- * -1 150 PSI rated		Model APIF-PVDF- * -1 150 PSI rated		Model APIF-CPVC- * -1 150 PSI rated (<i>not Corzan</i>)	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
		N	\$ 256.00			N	\$ 278.00
		B	\$ 282.00			B	\$ 303.00
		H	\$ 308.00			H	\$ 328.00
E	\$ 482.00	E	\$ 287.00	E	Call Factory	E	\$ 305.00
V	\$ 558.00	V	\$ 363.00	V	Call Factory	V	\$ 380.00
		T	\$ 703.00			T	\$ 722.00

Flanged Options

½" 150# Raised Face Flange inlet for PVC

Add suffix -F

List adder

\$ 99.00

Body Material

CODE A

316 Stainless Steel		Alloy 20		Hastelloy C		316 Stainless Steel	
Model APIF-S/S- * -0 150/300 PSI rated		Model APIF-ALL20- * -0 150/300 PSI rated		Model APIF-HAST- * -0 150/300 PSI rated		Model APIF-S/S - * -0 1000 PSI rated	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	Call Factory	N	Call Factory	N	Call Factory	N	Call Factory
B	Call Factory	B	Call Factory	B	Call Factory	B	Call Factory
H	Call Factory	H	Call Factory	H	Call Factory	H	Call Factory
E	Call Factory	E	Call Factory	E	Call Factory	E	Call Factory
V	Call Factory	V	Call Factory	V	Call Factory	V	Call Factory
T	Call Factory	T	Call Factory	T	Call Factory	»T	Call Factory
»600 PSI max							

Flanged Options

- ½" 150# Raised Face Flange inlet for stainless
- ½" 150# Raised Face Flange inlet for Alloy 20
- ½" 150# Raised Face Flange inlet for Hastelloy C
- For ½" npt connection (Metallic units only)

- Add suffix -F
- Add suffix -F
- Add suffix -F
- Add suffix -1

List adder

- Call Factory
- Call Factory
- Call Factory
- Call Factory

Replace * with Bellows Material "letter" to complete model code for correct material of construction.

ACCU-PULSE II

Pulsation Dampeners

ACCU-PULSE Series II (Chargeable-Adjustable)

150 PSI rated (metal chargeable 300 PSI rated except where noted)

85 cu. in capacity

3/4" npt bottom connection (optional 1" npt see bottom page)

Body Material

CODE A

PP - Polypropylene		PVC - Polyvinyl Chloride		PVDF - Polyvinylidene Fluoride		CPVC - Chlorinated Polyvinyl Chloride	
Model APII-PP- * -2 150 PSI rated		Model APII-PVC- * -2 150 PSI rated		Model APII-PVDF- * -2 150 PSI rated		Model APII-CPVC- * -2 150 PSI rated (<i>not Corzan</i>)	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	\$ 755.00	N	\$ 694.00	N	Call Factory	N	\$ 914.00
B	\$ 730.00	B	\$ 731.00	B	Call Factory	B	\$ 950.00
H	\$ 887.00	H	\$ 823.00	H	Call Factory	H	\$1,043.00
E	\$ 781.00	E	\$ 779.00	E	Call Factory	E	\$ 998.00
V	\$ 937.00	V	\$ 931.00	V	Call Factory	V	\$1,213.00
T	\$1,482.00	T	\$1,577.00	T	Call Factory	T	\$1,936.00

Flanged Options

1" 150# Raised Face Flange inlet for Poly & PVC	Add suffix -F	List adder
1" 150# Raised Face Flange inlet for PVDF	Add suffix -F	\$ 122.00
		\$ 372.00

Body Material

CODE A

316 Stainless Steel		Alloy 20		Hastelloy C		316 Stainless Steel	
Model APII-S/S- * -2 150/300 PSI rated		Model APII-ALL20- * -2 150/300 PSI rated		Model APII-HAST- * -2 150/300 PSI rated		Model APII-S/S - * -2 1000 PSI rated	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	Call Factory	N	Call Factory	N	Call Factory	N	Call Factory
B	Call Factory	B	Call Factory	B	Call Factory	B	Call Factory
H	Call Factory	H	Call Factory	H	Call Factory	H	Call Factory
E	Call Factory	E	Call Factory	E	Call Factory	E	Call Factory
V	Call Factory	V	Call Factory	V	Call Factory	V	Call Factory
»T*	Call Factory	»T*	Call Factory	»T*	Call Factory	»T	Call Factory
»150 PSI max		* Optional 300# available, Call Factory				»600 PSI max	

Flanged Options

1" 150# Raised Face Flange inlet for stainless	Add suffix -F	List adder
1" 150# Raised Face Flange inlet for Alloy 20	Add suffix -F	Call Factory
1" 150# Raised Face Flange inlet for Hastelloy C	Add suffix -F	Call Factory

For 1" npt connection change last digit in code from a -2 to a -3.
N/C for plastic; for metal Call Factory

Replace * with Bellows Material "letter" to complete model code for correct material of construction.

ACCU-PULSE IIF Pulsation Dampeners

ACCU-PULSE Series IIF (Chargeable-Adjustable)

150 PSI rated (metal chargeable 300 PSI rated)

36 cu. in capacity

3/4" npt bottom connection (optional 1" npt see bottom page)

Body Material

CODE A

PP - Polypropylene		PVC - Polyvinyl Chloride		PVDF - Polyvinylidene Fluoride		CPVC - Chlorinated Polyvinyl Chloride	
Model APIIF-PP- * -2 150 PSI rated		Model APIIF-PVC- * -2 150 PSI rated		Model APIIF-PVDF- * -2 150 PSI rated		Model APIIF-CPVC- * -2 150 PSI rated (<i>not Corzan</i>)	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	\$ 726.00	N	\$ 685.00	N	Call Factory	N	\$ 870.00
B	\$ 766.00	B	\$ 719.00	B	Call Factory	B	\$ 902.00
H	\$ 860.00	H	\$ 812.00	H	Call Factory	H	\$ 952.00
E	\$ 763.00	E	\$ 765.00	E	Call Factory	E	\$ 950.00
V	\$ 916.00	V	\$ 917.00	V	Call Factory	V	\$1,140.00
T	\$1,583.00	T	\$1,587.00	T	Call Factory	T	\$2,029.00

Flanged Options

1" 150# Raised Face Flange inlet for poly & PVC

Add suffix -F

List adder

\$ 122.00

1" 150# Raised Face Flange inlet for PVDF

Add suffix -F

\$ 372.00

Body Material

CODE A

316 Stainless Steel		Alloy 20		Hastelloy C		316 Stainless Steel	
Model APIIF-S/S- * -2 150/300 PSI rated		Model APIIF-ALL20- * -2 150/300 PSI rated		Model APIIF-HAST- * -2 150/300 PSI rated		Model APHIF-S/S - * -2 1000 PSI rated	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	Call Factory	N	Call Factory	N	Call Factory	N	Call Factory
B	Call Factory	B	Call Factory	B	Call Factory	B	Call Factory
H	Call Factory	H	Call Factory	H	Call Factory	H	Call Factory
E	Call Factory	E	Call Factory	E	Call Factory	E	Call Factory
V	Call Factory	V	Call Factory	V	Call Factory	V	Call Factory
T	Call Factory	T	Call Factory	T	Call Factory	»T	Call Factory
»600 PSI max							

Flanged Options

1" 150# Raised Face Flange inlet for stainless

Add suffix -F

List adder

Call Factory

1" 150# Raised Face Flange inlet for Alloy 20

Add suffix -F

Call Factory

1" 150# Raised Face Flange inlet for Hastelloy C

Add suffix -F

Call Factory

For 1" npt connection change last digit in code from a -2 to a -3.

N/C for plastic; for metal Call Factory.

Replace * with Bellows Material "letter" to complete model code for correct material of construction.

ACCU-PULSE III

Pulsation Dampeners

ACCU-PULSE Series III (Chargeable-Adjustable)

150 PSI rated (metal chargeable 300 PSI rated)
 370 cu. in capacity
 2" npt bottom connection

Body Material

CODE A

PP - Polypropylene Model APIII-PP- * -4 150 PSI rated		PVC - Polyvinyl Chloride Model APIII-PVC- * -4 150 PSI rated		PVDF - Polyvinylidene Fluoride Model APIII-PVDF- * -4 150 PSI rated	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	\$1,051.00	N	\$1,044.00	N	Call Factory
B	\$1,055.00	B	\$1,068.00	B	Call Factory
H	\$1,208.00	H	\$1,163.00	H	Call Factory
E	\$1,162.00	E	\$1,112.00	E	Call Factory
V	\$1,340.00	V	\$1,285.00	V	Call Factory
T	\$2,743.00	T	\$2,942.00	T	Call Factory

Flanged Options

2" 150# Raised Face Flange inlet for poly & PVC	Add suffix -F	List adder
2" 150# Raised Face Flange inlet for PVDF	Add suffix -F	\$ 148.00
		\$ 530.00

Body Material

CODE A

316 Stainless Steel Model APIII-S/S- * -4 150/300 PSI rated		Alloy 20 Model APIII-ALL20- * -4 150/300 PSI rated		Hastelloy C Model APIII-HAST- * -4 150/300 PSI rated		316 Stainless Steel Model APIII-S/S - * -4 1000 PSI rated	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	Call Factory	N	N/A	N	N/A	N	Call Factory
B	Call Factory	B	N/A	B	N/A	B	Call Factory
H	Call Factory	H	Call Factory	H	Call Factory	H	Call Factory
E	Call Factory	E	Call Factory	E	Call Factory	E	Call Factory
V	Call Factory	V	Call Factory	V	Call Factory	V	Call Factory
»T	Call Factory	»T	Call Factory	»T	Call Factory	»T	N/A
» 150 PSI Max							

Flanged Options

2" 150# Raised Face Flange inlet for stainless	Add suffix -F	List adder
2" 150# Raised Face Flange inlet for Alloy 20	Call Factory	Call Factory
2" 150# Raised Face Flange inlet for Hastelloy C	Call Factory	Call Factory

Replace * with Bellows Material "letter" to complete model code for correct material of construction.

ACCU-PULSE IIIF Pulsation Dampeners

ACCU-PULSE Series IIIF (Chargeable-Adjustable)

150 PSI rated (metal chargeable 300 PSI rated)
175 cu. in capacity
2" npt bottom connection

Body Material

CODE A

PP - Polypropylene Model APIIIF-PP- * -4 150 PSI rated		PVC - Polyvinyl Chloride Model APIIIF-PVC- * -4 150 PSI rated		PVDF - Polyvinylidene Fluoride Model APIIIF-PVDF- * -4 150 PSI rated	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	\$1,003.00	N	\$ 959.00	N	Call Factory
B	\$1,028.00	B	\$1,024.00	B	Call Factory
H	\$1,125.00	H	\$1,162.00	H	Call Factory
E	\$1,075.00	E	\$1,063.00	E	Call Factory
V	\$1,257.00	V	\$1,250.00	V	Call Factory
T	\$2,673.00	T	\$2,611.00	T	Call Factory

Flanged Options

2" 150# Raised Face Flange inlet for poly & PVC	Add suffix -F	List adder \$ 147.00
2" 150# Raised Face Flange inlet for PVDF	Add suffix -F	\$ 530.00

Body Material

CODE A

316 Stainless Steel Model APIIIF-S/S- * -4 300 PSI rated		Alloy 20 Model APIIIF-ALL20- * -4 300 PSI rated		Hastelloy C Model APIIIF-HAST- * -4 300 PSI rated		316 Stainless Steel Model APHIIIF-S/S - * -4 1000 PSI rated	
Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price	Bellows Material*	Price
N	Call Factory	N	N/A	N	N/A	N	Call Factory
B	Call Factory	B	N/A	B	N/A	B	Call Factory
H	Call Factory	H	Call Factory	H	Call Factory	H	Call Factory
E	Call Factory	E	Call Factory	E	Call Factory	E	Call Factory
V	Call Factory	V	Call Factory	V	Call Factory	V	Call Factory
T	Call Factory	T	Call Factory	T	Call Factory	»T	Call Factory

» 600 PSI Max

Flanged Options

2" 150# Raised Face Flange inlet for stainless	Add suffix -F	List adder Call Factory
2" 150# Raised Face Flange inlet for Alloy 20	Call Factory	Call Factory
2" 150# Raised Face Flange inlet for Hastelloy C	Call Factory	Call Factory

Replace * with Bellows Material "letter" to complete model code for correct material of construction.

ACCU-PULSE APX Series Pulsation Dampeners

Body Material

CODE A

316 Stainless Steel Model APX8-S/S-*-1 4000 PSI Rated		316 Stainless Steel Model APX12-S/S-*-1 4000 PSI Rated	
Bellows Material	Price	Bellows Material	Price
B	Call Factory	B	Call Factory
E	Call Factory	E	Call Factory
V	Call Factory	V	Call Factory

Body Material

CODE A

316 Stainless Steel Model APX16-S/S-*-1 4000 PSI Rated		316 Stainless Steel Model APX24-S/S-*-1 4000 PSI Rated	
Bellows Material	Price	Bellows Material	Price
B	Call Factory	B	Call Factory
E	Call Factory	E	Call Factory
V	Call Factory	V	Call Factory

Parts

CODE F

Materials	Part Number	Description	List Price
Buna-N	808-290	Bladder, APX 8 cu inch Series, BunaN	\$ 610.00
EPDM	808-280	Bladder, APX 8 cu inch Series, EPDM	\$ 652.00
Viton	808-310	Bladder, APX 8 cu inch Series, Viton	\$ 916.00
Buna-N	812-290	Bladder, APX 12 cu inch Series, BunaN	\$ 610.00
EPDM	812-280	Bladder, APX 12 cu inch Series, EPDM	\$ 652.00
Viton	812-310	Bladder, APX 12 cu inch Series, Viton	\$ 916.00
Buna-N	816-290	Bladder, APX 16 cu inch Series, BunaN	\$ 641.00
EPDM	816-280	Bladder, APX 16 cu inch Series, EPDM	\$ 711.00
Viton	816-310	Bladder, APX 16 cu inch Series, Viton	\$ 972.00
Buna-N	824-290	Bladder, APX 24 cu inch Series, BunaN	\$ 641.00
EPDM	824-280	Bladder, APX 24 cu inch Series, EPDM	\$ 711.00
Viton	824-310	Bladder, APX 24 cu inch Series, Viton	\$ 972.00
Buna-N	800-430	"O" Ring, Non-Wetted All APX Series, BunaN	\$ 28.00
Buna-N	800-431	"O" Ring, Wetted BunaN APX Series Sizes	\$ 28.00
EPDM	800-432	"O" Ring, Wetted EPDM APX Series Sizes	\$ 28.00
Viton	800-433	"O" Ring, Wetted Viton APX Series Sizes	\$ 28.00
	800-922	Retaining Ring, 2 Required, All APX Sizes	\$ 59.00
	800-070	Charge Valve/Cap	\$ 226.00

Prices subject to change without notice

Standard terms apply

Please see our Parts Catalogue for parts not listed (web link http://www.primaryfluid.com/pdf/us_parts_pricing_catalogue_.pdf)

ACCU-PULSE I / IF Series Pulsation Dampeners Parts

API/IF Series 150/300 PSIG (ALL MATERIALS (4 AND 10 CU IN UNITS))

			CODE F
Materials	Part #	Description	List Price
Neoprene	1000-25	Bladder, API/APIF Series, Neoprene	\$ 62.00
Buna-N	1000-29	Bladder, API/APIF Series, BunaN	\$ 90.00
Hypalon	1000-30	Bladder, API/APIF Series, Hypalon	\$ 123.00
EPDM	1000-28	Bladder, API/APIF Series, EPDM	\$ 100.00
Viton	1000-31	Bladder, API/APIF Series, Viton	\$ 188.00
PTFE * (PVC & PP)	P1000-10	Bladder, API/APIF Series, PTFE	\$ 638.00
PTFE (PVDF)	K1000-10	Bladder, API/APIF Series, PTFE	Call Factory
* Also used in Food/Sanitary dampeners			

Air Components 150/300 PSIG

			CODE F
Part #	Description		List Price
1000-70	Fill, Valve, 1/8" Brass, Plastic Units		\$ 40.00
101-53	Fill, Valve, 1/8" SS, Metallic Units		\$ 113.00
101-20	Gauge, 1/8" Back Mount, Plastic Units		\$ 59.00
G38	Gauge, 1/8" Back Mount, Metallic Units		\$ 125.00
1000-46	Tee, 1/8"		\$ 40.00
1000-42	Sleeveless Bushing (Req'd on APIF PVDF/PP units)		\$ 29.00
1000-58	Chargeable Air Assembly, Plastic Units		\$ 155.00
1020-58	Chargeable Air Assembly, Metallic Units		\$ 242.00

Prices subject to change without notice

Standard Terms apply

Please see our Parts Catalogue for parts not listed

(Web link http://www.primaryfluid.com/pdf/us_parts_pricing_catalogue_.pdf)

ACCU-PULSE II / IIF Series & III / IIIF Series Pulsation Dampeners Parts

II/IIF Series 150/300 PSIG (ALL MATERIALS (36 AND 85 CU IN UNITS))

			CODE F
Materials	Part #	Description	List Price
Neoprene	301-25	Bladder, APII/APIIF Series, Neoprene	\$ 144.00
Buna-N	401-29	Bladder, APII/APIIF Series, BunaN	\$ 225.00
Hypalon	401-30	Bladder, APII/APIIF Series, Hypalon	\$ 366.00
EPDM	401-28	Bladder, APII/APIIF Series, EPDM	\$ 312.00
Viton	401-25	Bladder, APII/APIIF Series, Viton	\$ 543.00
PTFE *	301-10	Bladder, APII/APIIF Series, PTFE	Call Factory
Aflas	301-55	Bladder, APII/APIIF Series, Aflas	\$ 663.00

* Also used in Food/Sanitary dampeners

APIII/IIIF Series 150/300 (ALL MATERIALS)

			CODE F
Materials	Part #	Description	List Price
Neoprene	101-25	Bladder, APIII/APIIIF Series, Neoprene	\$ 266.00
Buna-N	201-29	Bladder, APIII/APIIIF Series, BunaN	\$ 317.00
Hypalon	201-30	Bladder, APIII/APIIIF Series, Hypalon	\$ 449.00
EPDM	201-28	Bladder, APIII/APIIIF Series, EPDM	\$ 377.00
Viton	201-25	Bladder, APIII/APIIIF Series, Viton	\$ 790.00
PTFE	101-10	Bladder, APIII/APIIIF Series, PTFE	Call Factory
Aflas	101-55	Bladder, APIII/APIIIF Series, Aflas	\$1,099.00

Air Components 150/300 PSIG

		CODE F	
Part #	Description	List Price	
101-70	Fill, Valve, ¼" Brass, Plastic Units	\$	40.00
101-71	Fill, Valve, ¼" SS, Metallic Units	\$	115.00
101-33	Gauge, ¼" Lower Mount, Plastic Units	\$	59.00
G40	Gauge, ¼" Lower Mount, Metallic Units	\$	119.00

Prices subject to change without notice

Standard Terms apply

Please see our Parts Catalogue for parts not listed

(web link http://www.primaryfluid.com/pdf/us_parts_pricing_catalogue.pdf)

ACCU-PULSE pulsation dampener pricing for size shown only.

Other materials of construction available upon request.

Other Threaded connections available upon request.

Larger pulsation dampeners available on special order.

Terms

Prices quoted are in US Funds
Net 30 days firm (upon approved credit)
F.O.B. Burlington, Ontario, Canada
All Freight charges are extra
Stock to (1) one week normal delivery on standard items
Options and specials consult factory
Prices subject to change without notice
Minimum order of \$100.00 net.

ACCU-PULSE Safety Warnings

This dampener should only be installed and used by experienced and trained professional mechanics. Observe all safety warnings. Read all safety warnings and operating manuals before using or repairing this Pulsation Dampener (hereafter referred to as "dampener").

General Safety

This dampener is not intended to be used as a stand alone machine. EU member states must note: Do not use this dampener before it is combined into another machine or assembly that complies with all relevant EU safety directives and that the assembler's CE mark is affixed on completion.

The internal dampener pressure will equal the maximum fluid pressure of the system in which it is installed.

Do not exceed maximum pressure as stated on dampener tag. If tag is missing, do not use this dampener without consulting distributor or factory for maximum pressure rating.

Always make sure safety shut off valves, regulators, pressure relief valves, gauges etc. are working properly before starting system or assembly.

Always wear protective gloves, safety glasses, etc. when working on or near this dampener.

Before starting a system or assembly, make certain the discharge point of the piping system is clear and safe, and all persons have been warned to stand clear.

Always wear safety glasses when installing, charging or repairing this dampener.

Do not put your face or body near dampener when the system assembly is operating or dampener is pressurized.

Do not operate a dampener that is leaking, damaged, corroded or otherwise unable to contain internal fluid, air or gas pressure.

Do not pump incompatible fluids through the dampener. Consult your distributor or the factory if you are not sure of the compatibility of the fluids with the dampener materials.

Dampeners are designed to operate with compressed air or nitrogen. Other compressed gases have not been tested and may be unsafe to use in dampeners.

Bleed all pressure from system and dampener before removing equipment from the system.

Always shut off air supply, bleed internal dampener pressure and shut isolation valve before performing maintenance or repair on dampener.

Static spark can cause an explosion resulting in severe injury or death. Ground dampeners and pumping system when pumping flammable fluids.

Equipment Misuse Hazard

General Safety

Any misuse of this equipment such as over pressurization, modifying parts, incompatible chemicals, using worn or damage parts or using gases other than air or nitrogen to charge dampener is not recommended. Any of these circumstances could result in serious bodily injury, death, fire, explosion or property damage.

Over-Pressurization

Never exceed the maximum operating pressure recommended for the dampener model being used. Maximum operating pressure is stated on tag. Pressure limits are stated at 20°C / 70°F.

Temperature Limits

Do not exceed the recommended operating temperatures for the shell and elastomer materials, independently. Excessive temperature will result in dampener failure. Temperature limits are stated at zero psig / bar.

Installation and Start-Up Hazards

Install dampener before charging or pressurizing.

Do not start system or assembly without first charging or pressurizing dampener. Failure to charge may result in damage to the elastomeric bladder.

Temperature & Pressure Hazard

Temperature and pressure reduce the strength and chemical resistance of plastic, metal and rubber.

Charging / Pressurization

Charge or pressurize the dampener with compressed air or nitrogen only. **Do NOT use oxygen.**

Dampener Bladder Failure

Dampeners utilize an elastomeric membrane to separate system fluid from the air supply or gas charge. When this membrane ruptures, system fluid may be expelled from the air valve. Always perform preventive maintenance and replace elastomers before excessive wear occurs.

Maintenance Hazards

Never over-tighten clamp bands. This may cause leakage of system fluid and damage to dampener shell.