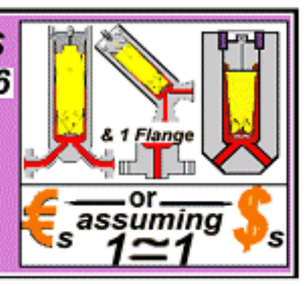
Medium, High, Super, & Ultra Pressure "GAS BAG" Stainless Pulse Dampers

The Dual Use PIPEGUARD range, by PULSEGUARD Inc. 86

For Lower Pressure Please See PipeGuard /LP



The Original 1965, no poppet to jam, no glue or bonds, with internal web stabilisation

*Twin connection are **off the shelf inventory items,** If you do not wish to have in place flush before service nor constant temperature, and no pressure pulse interception, - then save the cost of an extra "T", and use the 2nd connection for RV, Drain, or Gauge.*

Dimensions, weights, installation options, and prices below, and for all other damper types with drawings are on the WWW site below. PLEASE ASK FOR AN E-MAIL FILE SHOWING HOW TO NAVIGATE TO THEM IN only 3 CLICKS.
www.pulseguard.com/pulsation_dampening/select_smooth_percentage/flow_or_pressure/find_pump_f/calc_damper_volume/select_pipe_method/etc/Elastomer/Gas_Bag/PigHP/PighpP5.pdf

INVENTORY THE DRAWING NBR. WILL INCLUDE PART Nmbr.Plus the NUMBERS BELOW **PRICE** **SPECIFICATION** **SERVICE**

Please insert Material Preferred ✻✻ into PART Number below when ORDERING	In3	Bar	CONNECTIONS Max for This Volume To Pmp.	To Sys.	CONNECT. Type "TW"	Bolt hole face Mates with "O" Ring in piping block. SF-"O"	Standard VOLUMES Liters	PRES. @ 93° C Std. PSI (N.B.)	$s or € FOB NC USA or Stockport UK IN 316L ss	LENGTH L Without Pipes Inch	mm	DIAMETER D Inch	mm	WEIGHT Kg.	SPARES KIT Pt. Nbr. "SK- --x-- ?" ?= "N" = Buna N "E"=EPDM, "V"=Fluoro
PiG-ss-	/6.0i	-207	3/8"Fx1/4"F	N.	"+Flg" Larger flgs. than damper Welded on, Extra, 1/2" 2500		0.1	/3000p /		7.125	181	2.5	63	6.0	B44x75 ?
PiG-SS-	/15i	-240	1/2"Fx3/8"F	N.	4 x 3/8" On 2.25" PCD		0.25	/3500p /		8.54	217	2.8	70	10.0	B57x98 ?
PiG-SS-	/40i	-140	3/4"Fx1/2"F	N.	4 x 1/2" On 2.5" PCD		0.65	/2000p /		11.1	282	3.5	89	15.0	B62x207 ?
PiG-SS-	/75i	-140	1.0"Fx3/4"F	N.	4 x 1/2" On 2.5" PCD		1.25	/2000p /		17.0	432	3.46	88	22.0	B72x315 ?
PiG-SS-	/100i	-145	1.25Mx1.0"F	N.	4 x 3/4" On 3.5" PCD		1.5	/2100p /		13.76	350	4.49	114	25.0	B98x232 ?
PiG-SS-	/120i	-145	1.5"Mx1.5"M	N.	4 x 3/4" On 3.5" PCD	BS4504 Dm2501 ANSI B 16.5	2.0	/2100p /		15.94	405	4.49	114	27.0	B98x300 ?
PiG-SS-	/170i	-131	2.0"Mx1.5"M	N.	DN20PN250	1"1500#	2.8	/1900p /		14.37	365	5.55	141	36.0	B123x250
PiG-SS-	/200i	-131	2.0"Mx2.0"M	N.	DN20PN250	1"1500#	3.28	/1900p /		16.46	423	5.55	141	40.0	B123x295
PiG-SS-	/250i	-131	2.0"Mx2.0"M	N.	DN20PN250	1"1500#	4.0	/1900p /		18.5	470	5.55	141	45.0	B123x357
PiG-SS-	/120i	-240	3.0"Mx2.0"M	W	DN25PN400	1"2500#	2.0	/3500p /		11.8	300	6.7	170	30.0	B139x105
PiG-SS-	/240i	-240	3.0"Mx2.0"M	W	DN25PN400	1"2500#	3.9	/3500p /		15.7	400	6.7	170	37.0	B139x205
PiG-SS-	/488i	-240	3.0"Mx2.0"M	W	DN25PN400	1"2500#	8.0	/3500p /		24	610	6.7	170	46.0	B139x420
THESE SIZES, ALSO AVAILABLE AT 1500 PSI /100 Bar ARE NOT ALWAYS "OFF THE SHELF" INVENTORY															
PiG-SS-/	693i	207	3"Mx3"M	W.	DN65PN250	2"1500#	11.4	/ 3,000p/		24	610	8.62	219	96	B195x360
PiG-SS-/	1220i	241	3"Mx3"M	W.	DN80PN250	2.5"2500#	20	/ 3,500p/		30	760	10.75	273	177	B230x500
PiG-SS-/	2135i	241	4"Mx4"M	W.	DN100PN160	3"2500#	35	/ 3,500p/		36	915	12.75	324	290	B260x600
PiG-SS-/	3050i	172	5"Mx5"M	W.	DN150PN250	4"1500#	50	/ 2,500p/		42	1067	14"	356	340	B300x700
PiG-SS-	/1.0i	-414	1/4"x1/4"F	N.	Not Applicable		0.016	/ 6,000p /		4.6	117	1.77	45	3.0	B24x50 ?
PiG-SS-	/2.0i	-414	1/4"x1/4"F	N.	Not Applicable		0.032	/ 6,000p /		6	152	1.77	45	4.0	B24x80 ?
PiG-DSS-	/6.0i	1034	3/8"x1/4"M	AE.	4 x 1/2" On 2.5" PCD		0.1	/15,000p/		7.5	190	3.5	89	17.0	B44x75 ?
PiG-DSS-	/15i	-776	1/2"x3/8"M	AE.	4 x 5/8" On 2.75" PCD		0.25	/11,250p/		10.0	254	4.0	102	26.0	B57x98 ?
PiG-SDSS	/60i	-759	1.0"x3/4"M	AEorH		1/2"2500#	1.0	/11,000p/		16.0	406	5.1	130	70.0	B72x255 ?

NOTE Use of DN--PN-- flanges may also require the use of European norms for allowable working stress. These are not necessarily safe for cyclic duty.
(N.B.) = Many others available, but not necessarily from inventory AE=AUTOCLAVE /PPI, H=Tech/Secure/Lloyd/Lock hub, N=NPT W=weld end, **M = Male F= Female**

If only 1 connection is used, Ex. for flow fluctuation removal [instead of pressure pulsation interception] , the other port saves the need for a system "T" for drain valve, or RV, or gauge. Single connection is available but as a non inventory item. ✻✻ **SS=316 dual certified stainless steel. DSS=duplex stainless. SDSS=super duplex stainless. F=female connection M=male connection**

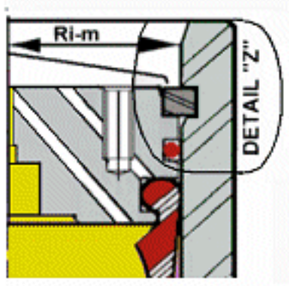
For wetted parts of : Hastelloy 22, C276, or B2 Titanium, Tantalum, etc. see PIPEHUGGER range

6:1 Safety Factor, "Fail Safe" Pulse Dampers- follow sound engineering practice and are built to our "suitability for purpose - and safe in use code" (Rev 1. 1965) which requires that they "lose energy stored in them BEFORE reaching destruction pressure".

Proof tests to destruction, for stainless & carbon steel, with 3 wall thicknesses at each of 10 diameters prove a safety factor in excess of 6.

The Safety Difference

Ref ASME VIII Div. 1. Any of these "snubbers" that are "U" stamped are provided solely at customers own risk, the company removes all warantee expressed or implied, as to safety on such items; see "Note" bleow.



Where :- "P" Design Pressure is MAWP + 10% to RV set, then + 15% to cover RV accumulation.
IE MAWP is 79% of P psi
S is a low allowable working strees for a seamless ductile material.
Ri-C is less than 0.3 Ri-m

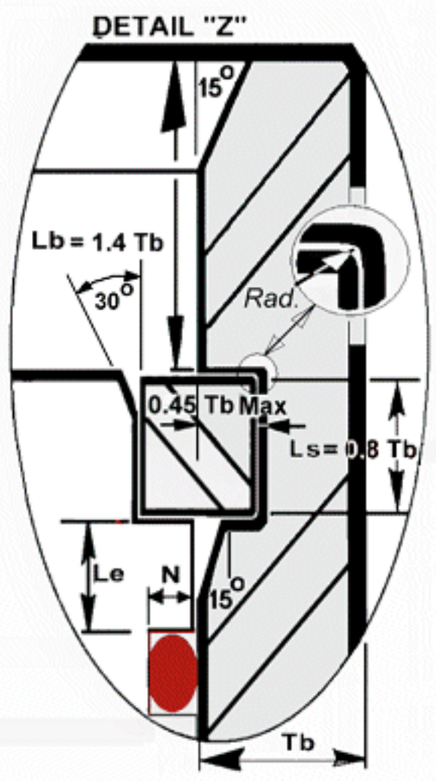
Then P is the lesser of (1) or (2)

(1) $P = \frac{(S - 0.6P) \times Tb}{Ri\text{-}m}$

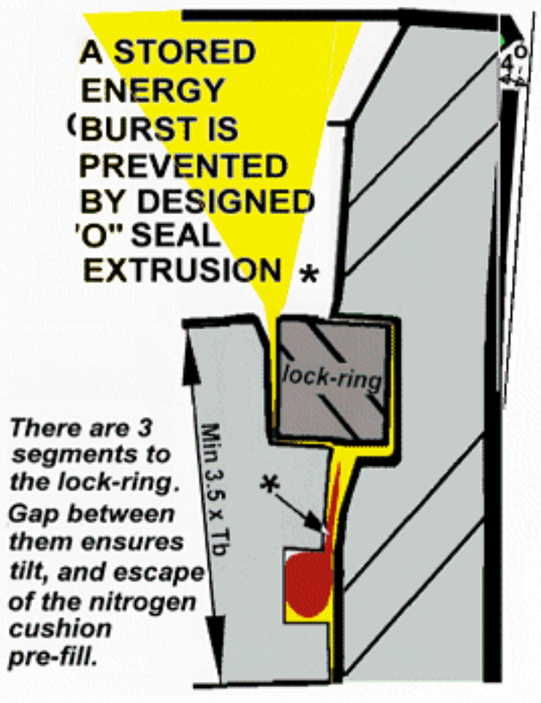
(2) $P = \frac{(0.7S - 0.6P) \times Tw}{Ri\text{-}w}$

W is 100% GTAW 309ss SA106 Gr B/C to SA 516 Gr 60/70

NOTE : Following other criteria may often result in a safety factor less than 3, the strain from which causes fatigue.



DEFORMATION IS EXAGGERATED FOR EASIER COMPREHENSION



There are 3 segments to the lock-ring. Gap between them ensures tilt, and escape of the nitrogen cushion pre-fill.

Damper Designs under License from M Packer since 1963

THE DIFFERENCE IS IN THE DETAIL