



December 1, 2014

PED Categories & Classifications

Blacoh pulsation dampeners are classified under PED (fixed equipment) as pressure accessories and are classified under Category I and SEP. Working fluids are classified under PED into 2 groups. Group 1 consists of dangerous fluids (flammable, toxic and/or oxidizing). Group 2 consists of all other fluids (non-dangerous) not covered in Group 1. Pressure equipment has distinct categories based on maximum allowable pressure, type of working fluid and internal free volume.

In accordance with PED guidelines, Blacoh pulsation and surge suppressors can be used with both Group 1 and Group 2 fluids for specific applications within the EEA. Blacoh products can be classified within the PED directive as either Category I (bearing the CE Mark) or SEP (not allowed to bear CE Mark). See **Table A** for specific PED category criteria.

Table A PED Categories for Group 1 & 2 Fluids

Category	CE Mark	Group 1 Fluids Criteria	Group 2 Fluids Criteria
SEP	No	Product Index: $PS \times V < 25 \text{ B}^*L$ and If $V < 1$ liter, PS must be < 200 bar	Product Index: $PS \times V < 50 \text{ B}^*L$ and If $V < 1$ liter, PS must be < 1000 bar
I	Yes	Product Index: $25 > PS \times V < 50$ and $V > 1$ liter	Product Index: $50 > PS \times V < 200$ and $V > 1$ liter

Product Index = $PS \times V$ = Pressure (PS) x Volume (V) = ____ B^*L (bar x liter)

Table B on the following page shows PED classification for Blacoh pulsation dampeners, surge suppressors and Tef-Guard models.

Note that limiting factors are in **bold** face type.

For pressures:

- If "max. psi" is in bold, the pressure rating is limited to BFC design
- If "max. bar" is in bold, the pressure rating is PED limited.

Table B Blacoh Products with PED Classification

	Model	Type	in ³	liter	Group 1				Group 2			
					max. psi	max. bar	bar*liter	Category	max. psi	max. bar	bar*liter	Category
METAL	SENTRY I	Dome Top	370	6.06	115	8	48.1	I	475	33	198.6	I
		Flat Top	175	2.87	250	17	49.4	I	1000	69	197.7	I
	SENTRY II	Dome Top	85	1.39	500	34	48.0	I	1000	69	96.0	I
		Flat Top	36	0.59	1000	69	40.7	SEP	1000	69	40.7	SEP
	SENTRY III	Dome Top	10	0.16	1000	69	11.3	SEP	1000	69	11.3	SEP
		Flat Top	4	0.07	1000	69	4.5	SEP	1000	69	4.5	SEP
	SENTRY IV	5 Gallon	1155	18.93	38	3	49.6	I	150	10	195.7	I
	SENTRY V	10 Gallon	2310	37.85	19	1	49.6	I	75	5	195.7	I
	577	2.5 Gallon	577	9.46	75	5	48.9	I	150	10	97.8	I
	XPA	8 in ³	8	0.13	2800	193	25.3	SEP	7500	517	67.8	SEP
12 in ³		12	0.20	2800	193	38.0	SEP	7500	517	101.7	SEP	
24 in ³		24	0.39	2800	193	75.9	SEP	7300	503	197.9	SEP	
Tef-Guard		12	0.20	2000	138	27.1	SEP	2000	138	27.1	SEP	
PLASTIC	SENTRY I	Dome Top	370	6.06	115	8	48.1	I	150	10	62.7	I
		Flat Top	175	2.87	150	10	29.7	I	150	10	29.7	SEP
	SENTRY II	Dome Top	85	1.39	150	10	14.4	SEP	150	10	14.4	SEP
		Flat Top	36	0.59	150	10	6.1	SEP	150	10	6.1	SEP
	SENTRY III	Dome Top	10	0.16	150	10	1.7	SEP	150	10	1.7	SEP
		Flat Top	4	0.07	150	10	0.7	SEP	150	10	0.7	SEP
PVDF	SENTRY I	Dome Top	370	6.06	115	8	48.1	I	200	14	83.6	I
		Flat Top	175	2.87	150	10	29.7	I	150	10	29.7	SEP
	SENTRY II	Dome Top	85	1.39	250	17	24.0	SEP	250	17	24.0	SEP
		Flat Top	36	0.59	150	10	6.1	SEP	150	10	6.1	SEP
	SENTRY III	Dome Top	10	0.16	200	14	2.3	SEP	200	14	2.3	SEP
		Flat Top	4	0.07	200	14	0.9	SEP	200	14	0.9	SEP

⁽¹⁾ End user is responsible for determining either Group 1 or Group 2 fluid category

⁽²⁾ Consult Blacoh for flange models

⁽³⁾ Blacoh offers only SEP and Category 1 classifications at this time

For additional information, refer to:

- [Blacoh website online certifications](#)
- [European Commission, Enterprise and Industry, Pressure Equipment Directive \(PED\): overview](#)

For more information or assistance, call Blacoh at 951.342.3100 (toll free 800.603.7867) or email us at Sales@Blacoh.com.

We sincerely appreciate your business and look forward to serving you.