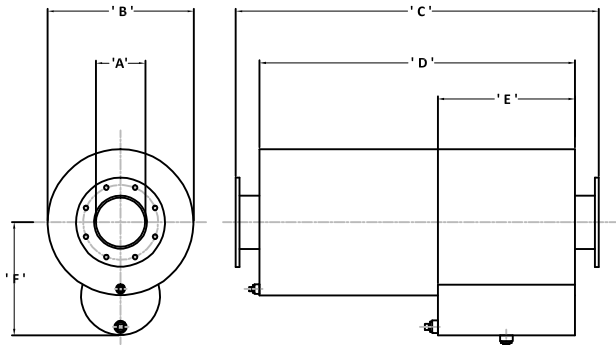


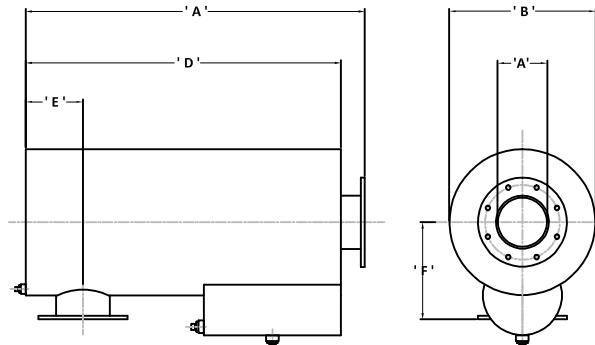


# HPA 1 Type: Centrifugal Resonator Spark Arrestor Exhaust Gas Silencers 18dB(A) Insertion Loss

AXIAL INLET & AXIAL OUTLET VERSIONS



RADIAL INLET & AXIAL OUTLET VERSIONS



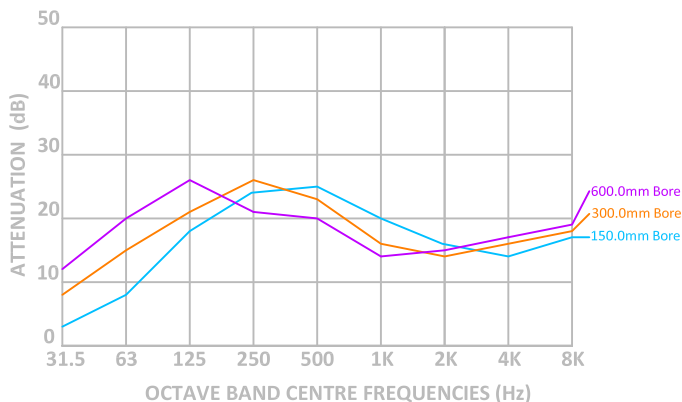
Silencer Part Number	'A'	'B'	'C'	'D'	'E'	'F'	Wt. (kg)
HPA1 038 (F & S)	38.1	210.0	510.0	360.0	180.0	155.0	6.0
HPA1 050 (F & S)	50.8	210.0	535.0	385.0	180.0	155.0	7.5
HPA1 063 (F & S)	63.5	260.0	560.0	410.0	180.0	205.0	9.9
HPA1 075 (F & S)	76.2	310.0	660.0	510.0	180.0	225.0	15.5
HPA1 090 (F & S)	88.9	360.0	760.0	610.0	230.0	275.0	22.0
HPA1 100 (F & S)	101.6	360.0	860.0	710.0	280.0	275.0	30.0
HPA1 125 (F)	127.0	410.0	990.0	840.0	280.0	300.0	44.0
HPA1 150 (F)	152.4	460.0	1140.0	990.0	430.0	355.0	60.0
HPA1 175 (F)	177.8	510.0	1280.0	1130.0	430.0	380.0	92.0
HPA1 200 (F)	203.2	560.0	1420.0	1270.0	430.0	405.0	115.0
HPA1 225 (F)	228.6	610.0	1450.0	1300.0	430.0	430.0	135.0
HPA1 250 (F)	254.0	660.0	1500.0	1320.0	430.0	455.0	170.0
HPA1 300 (F)	304.8	760.0	1750.0	1570.0	430.0	505.0	250.0
HPA1 350 (F)	355.6	920.0	2010.0	1830.0	585.0	605.0	338.0
HPA1 400 (F)	406.4	1020.0	2210.0	2030.0	585.0	655.0	480.0
HPA1 450 (F)	457.2	1170.0	2540.0	2340.0	585.0	730.0	625.0
HPA1 500 (F)	508.0	1270.0	2740.0	2540.0	736.0	810.0	790.0
HPA1 550 (F)	558.8	1370.0	2950.0	2750.0	736.0	855.0	1005.0
HPA1 600 (F)	609.6	1470.0	3250.0	2950.0	736.0	905.0	1200.0

'S' denotes B.S.P. Screwed versions are available as standard.  
'F' denotes Flanged versions are available in BS 10 Table 'D' drillings as standard.  
All dimensions given are in millimeters.  
All weights stated are in kilograms.  
All the dimensions and weights given are approximate and may vary under manufacturing conditions.  
All dimensions and weights given are not binding and may change without prior warning.  
All units can be installed vertically, horizontally without detriment acoustically.  
Acoustic treatment to primary chamber casing available, if required

Silencer Part Number	'A'	'B'	'C'	'D'	'E'	'F'	Wt. (kg)
HPA1-SE 038 (F & S)	38.1	210.0	435.0	360.0	50.0	180.0	5.8
HPA1-SE 050 (F & S)	50.8	210.0	450.0	385.0	60.0	180.0	7.3
HPA1-SE 063 (F & S)	63.5	260.0	485.0	410.0	70.0	205.0	9.7
HPA1-SE 075 (F & S)	76.2	310.0	585.0	510.0	75.0	230.0	15.2
HPA1-SE 090 (F & S)	88.9	360.0	685.0	610.0	80.0	255.0	21.7
HPA1-SE 100 (F & S)	101.6	360.0	785.0	710.0	90.0	255.0	29.5
HPA1-SE 125 (F)	127.0	410.0	915.0	840.0	110.0	280.0	43.5
HPA1-SE 150 (F)	152.4	460.0	1065.0	990.0	130.0	305.0	59.5
HPA1-SE 175 (F)	177.8	510.0	1205.0	1130.0	140.0	330.0	91.0
HPA1-SE 200 (F)	203.2	560.0	1355.0	1270.0	140.0	355.0	114.0
HPA1-SE 225 (F)	228.6	610.0	1385.0	1310.0	150.0	380.0	134.0
HPA1-SE 250 (F)	254.0	660.0	1410.0	1320.0	160.0	420.0	168.0
HPA1-SE 300 (F)	304.8	760.0	1660.0	1570.0	190.0	470.0	247.0
HPA1-SE 350 (F)	355.6	920.0	1920.0	1830.0	210.0	550.0	335.0
HPA1-SE 400 (F)	406.4	1020.0	2210.0	2030.0	240.0	600.0	475.0
HPA1-SE 450 (F)	457.2	1170.0	2440.0	2340.0	270.0	685.0	620.0
HPA1-SE 500 (F)	508.0	1270.0	2640.0	2540.0	300.0	735.0	780.0
HPA1-SE 550 (F)	558.8	1370.0	2850.0	2750.0	330.0	785.0	995.0
HPA1-SE 600 (F)	609.6	1470.0	3100.0	2950.0	360.0	885.0	1190.0

The 'F' dimension is fixed the dimensions are given in millimeters.  
All units are manufactured from mild carbon steel to BS-EN 10025 S275JR or equal.  
The standard external protection is one coat heat resisting aluminium paint suitable for elevated temperatures. Alternative finishes including such processes as Aluminium/Zinc metal spray and galvanizing are available at extra cost, if required.  
Alternative materials of construction are available if required. These include stainless steel Types 321, 316, 316L, 304 304L as well as Corten A & B, Monel & Brass  
All units are supplied with drain points.

TYPICAL INSERTION LOSS FIGURES FOR HPA1 & HPA1-SE TYPE UNITS (Not Binding)



The HPA1 & HPA1-SE (Side-Entry) type exhaust gas silencers are a simple energy converter design utilizing the exhaust gas velocity and differing volumes to create rapid changes in velocity resulting in noise energy conversion into heat, which is then dissipated to the silencer casing. The design also uses the reflective principles well known in acoustic work to bounce dominant frequencies back on themselves canceling each other out. This increases the insertion loss at the lower frequencies including the fundamental firing frequency to give a silencer with medium pressure drop and good capabilities at the low range.  
The design also incorporates a highly efficient centrifugal spark arrestor capability and can be used as a primary silencer for hazardous marine and onshore applications and it can also be close coupled or remotely mounted to a HSLS or HSLS-SE series dissipative silencer to reduce exhaust gas noise to a lower more acceptable emission level.  
The design is also available in austenitic stainless steel for offshore applications subject to acceptable certification requirements being met in full.  
Consult PGS Engineering Staff for further details prior to order.