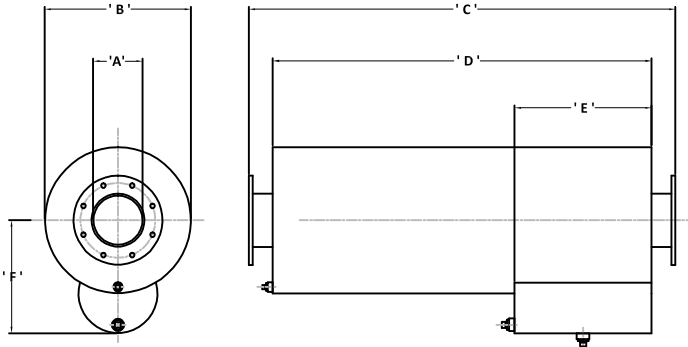




HPA 3 Type: Centrifugal Resonator Spark Arrestor Exhaust Gas Silencers 28dB(A) Insertion Loss

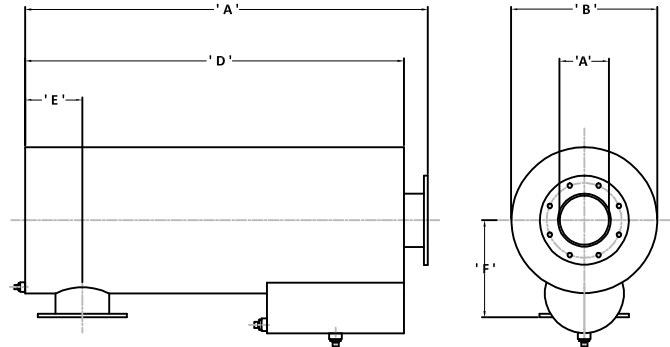
AXIAL INLET & AXIAL OUTLET VERSIONS



Silencer Part Number	'A'	'B'	'C'	'D'	'E'	'F'	Wt. (kg)
HPA3 038 (F & S)	38.1	210.0	800.0	650.0	180.0	155.0	6.0
HPA3 050 (F & S)	50.8	260.0	960.0	810.0	180.0	205.0	9.0
HPA3 063 (F & S)	63.5	310.0	1060.0	910.0	180.0	225.0	16.0
HPA3 075 (F & S)	76.2	360.0	1170.0	1020.0	180.0	275.0	36.0
HPA3 090 (F & S)	88.9	410.0	1350.0	1200.0	230.0	275.0	45.0
HPA3 100 (F & S)	101.6	460.0	1370.0	1220.0	280.0	300.0	55.0
HPA3 125 (F)	127.0	460.0	1630.0	1480.0	280.0	355.0	80.0
HPA3 150 (F)	152.4	560.0	1830.0	1680.0	430.0	405.0	127.0
HPA3 175 (F)	177.8	610.0	2000.0	1850.0	430.0	430.0	170.0
HPA3 200 (F)	203.2	660.0	2160.0	2010.0	430.0	455.0	220.0
HPA3 225 (F)	228.6	710.0	2320.0	2170.0	430.0	480.0	315.0
HPA3 250 (F)	254.0	760.0	2620.0	2440.0	430.0	505.0	345.0
HPA3 300 (F)	304.8	920.0	3000.0	2820.0	430.0	605.0	545.0
HPA3 350 (F)	355.6	1020.0	3230.0	3050.0	585.0	665.0	700.0
HPA3 400 (F)	406.4	1170.0	3400.0	3220.0	585.0	730.0	840.0
HPA3 450 (F)	457.2	1270.0	3860.0	3660.0	585.0	810.0	1070.0
HPA3 500 (F)	508.0	1370.0	4450.0	4250.0	736.0	855.0	1310.0
HPA3 550 (F)	558.8	1530.0	4700.0	4500.0	736.0	930.0	1580.0
HPA3 600 (F)	609.6	1630.0	5300.0	5000.0	736.0	1010.0	2000.0

'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 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.
Add 100.0mm to Dimensions 'B' for acoustically treated versions.

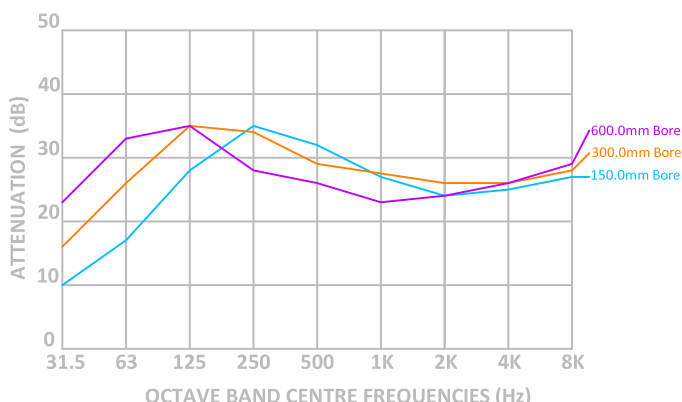
RADIAL INLET & AXIAL OUTLET VERSIONS



Silencer Part Number	'A'	'B'	'C'	'D'	'E'	'F'	Wt. (kg)
HPA3-SE 038 (F & S)	38.1	210.0	725.0	650.0	100.0	180.0	5.9
HPA3-SE 050 (F & S)	50.8	260.0	885.0	810.0	100.0	205.0	8.9
HPA3-SE 063 (F & S)	63.5	310.0	985.0	910.0	100.0	230.0	15.8
HPA3-SE 075 (F & S)	76.2	360.0	1095.0	1020.0	100.0	255.0	35.8
HPA3-SE 090 (F & S)	88.9	410.0	1275.0	1200.0	100.0	280.0	44.6
HPA3-SE 100 (F & S)	101.6	460.0	1295.0	1220.0	125.0	305.0	54.5
HPA3-SE 125 (F)	127.0	460.0	1555.0	1480.0	150.0	305.0	79.5
HPA3-SE 150 (F)	152.4	560.0	1755.0	1680.0	180.0	355.0	126.0
HPA3-SE 175 (F)	177.8	610.0	1925.0	1850.0	190.0	380.0	169.0
HPA3-SE 200 (F)	203.2	660.0	2100.0	2010.0	210.0	405.0	219.0
HPA3-SE 225 (F)	228.6	710.0	2245.0	2170.0	210.0	430.0	314.0
HPA3-SE 250 (F)	254.0	760.0	2530.0	2440.0	225.0	470.0	343.0
HPA3-SE 300 (F)	304.8	920.0	2910.0	2820.0	280.0	550.0	452.0
HPA3-SE 350 (F)	355.6	1020.0	3140.0	3050.0	305.0	600.0	695.0
HPA3-SE 400 (F)	406.4	1170.0	3310.0	3220.0	330.0	675.0	835.0
HPA3-SE 450 (F)	457.2	1270.0	3130.0	3660.0	365.0	735.0	1065.0
HPA3-SE 500 (F)	508.0	1370.0	4350.0	4250.0	400.0	785.0	1305.0
HPA3-SE 550 (F)	558.8	1530.0	4600.0	4500.0	430.0	865.0	1570.0
HPA3-SE 600 (F)	609.6	1630.0	5150.0	5000.0	460.0	965.0	1990.0

The 'F' dimension is variable anywhere between the two dimensions 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 and ash box cleaning access points.
Conforms to EEC 98/37/EC & BS-EN 1834-1 Machinery Directives and all known amendments.

TYPICAL INSERTION LOSS FIGURES FOR HPA3 & HPA3-SE TYPE UNITS (Not Binding)



The HPA3 & HPA3-SE (Side-Entry) type, is the largest of the spark arrestor exhaust gas silencers available, again this is a simple energy converter design utilizing the exhaust gas velocity and differing volumes to create rapid changes in exhaust gas speed resulting in noise energy conversion into heat energy, which is then dissipated to the silencer casing or carried away in the exhaust gas flow. 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 overall insertion loss to 28dB(A) at the lower frequencies including the fundamental firing frequency of the engine to give a silencer with medium pressure drop and good capabilities at the low range. Acoustically treated versions are readily available with increased insertion loss capabilities if required.

The design also cleverly incorporates a highly efficient centrifugal spark arrestor capability and can be used as a stand alone silencer for hazardous marine and onshore applications by meeting the requirements of EEC 98/37/EC and BS-EM1834-1 Machinery Directive and all their amendments. The unit can also be close coupled or remotely mounted to a HSLS, HESLS and HXSLS series, dissipative silencer to reduce exhaust gas noise to a lower more acceptable emission level dependant upon the actual specification.

The design is also available in various austenitic stainless steels for offshore applications subject to acceptable certification requirements being met in full. Consult PGS Engineering Staff for further details prior to order.