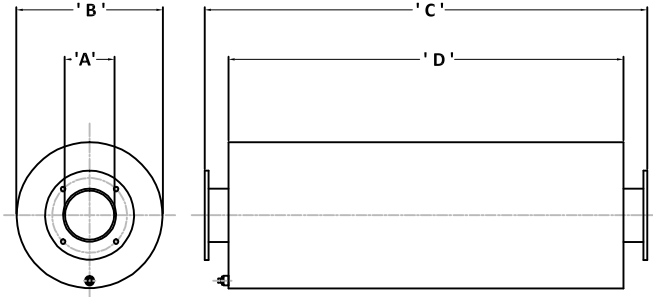




# HPRA 3 Type: Expansion/Dissipative Exhaust Gas Silencers.

## 45dB(A) Insertion Loss

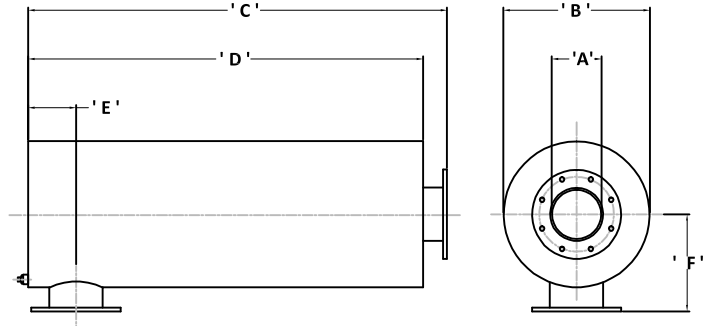
### AXIAL INLET & AXIAL OUTLET VERSIONS



Silencer Part Number	'A'	'B'	'C'	'D'	Wt. (kg)
HPRA3 050 (F & S)	50.8	210.0	1500.0	1350.0	26.5
HPRA3 063 (F & S)	63.5	260.0	1800.0	1650.0	40.5
HPRA3 075 (F & S)	76.2	260.0	2300.0	2150.0	57.5
HPRA3 090 (F & S)	88.9	310.0	2500.0	2350.0	82.0
HPRA3 100 (F & S)	101.6	360.0	2600.0	2450.0	105.0
HPRA3 125 (F)	127.0	410.0	2800.0	2650.0	140.0
HPRA3 150 (F)	152.4	460.0	3150.0	3000.0	210.0
HPRA3 175 (F)	177.8	510.0	3450.0	3300.0	292.0
HPRA3 200 (F)	203.2	560.0	3650.0	3500.0	395.0
HPRA3 225 (F)	228.6	610.0	3850.0	3700.0	495.0
HPRA3 250 (F)	254.0	660.0	4300.0	4120.0	575.0
HPRA3 300 (F)	304.8	760.0	4600.0	4420.0	852.0
HPRA3 350 (F)	355.6	920.0	5100.0	4920.0	1190.0
HPRA3 400 (F)	406.4	1020.0	5600.0	5420.0	1290.0
HPRA3 450 (F)	457.2	1170.0	6200.0	6000.0	1440.0
HPRA3 500 (F)	508.0	1270.0	6600.0	6400.0	1850.0
HPRA3 550 (F)	558.8	1370.0	7000.0	6800.0	2200.0
HPRA3 600 (F)	609.6	1470.0	7300.0	7000.0	2600.0

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

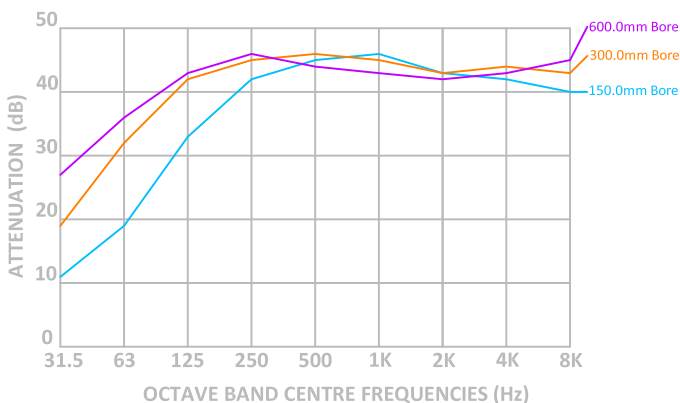
### RADIAL INLET & AXIAL OUTLET VERSIONS



Silencer Part Number	'A'	'B'	'C'	'D'	'E'	'F'	Wt. (kg)
HPRA3-SE 050 (F & S)	50.8	210.0	1425.0	1350.0	50.0/ 210.0	180.0	26.0
HPRA3-SE 063 (F & S)	63.5	260.0	1725.0	1650.0	70.0/ 260.0	205.0	40.0
HPRA3-SE 075 (F & S)	76.2	260.0	2225.0	2150.0	80.0/ 260.0	205.0	57.0
HPRA3-SE 090 (F & S)	88.9	310.0	2425.0	2350.0	90.0/ 310.0	230.0	81.0
HPRA3-SE 100 (F & S)	101.6	360.0	2525.0	2450.0	95.0/ 360.0	255.0	104.0
HPRA3-SE 125 (F)	127.0	410.0	2725.0	2650.0	110.0/ 410.0	280.0	138.0
HPRA3-SE 150 (F)	152.4	460.0	3075.0	3000.0	120.0/ 460.0	305.0	208.0
HPRA3-SE 175 (F)	177.8	510.0	3375.0	3300.0	135.0/ 510.0	355.0	288.0
HPRA3-SE 200 (F)	203.2	560.0	3575.0	3500.0	145.0/ 600.0	380.0	390.0
HPRA3-SE 225 (F)	228.6	610.0	3775.0	3700.0	165.0/ 620.0	380.0	490.0
HPRA3-SE 250 (F)	254.0	660.0	4210.0	4120.0	180.0/ 720.0	420.0	565.0
HPRA3-SE 300 (F)	304.8	760.0	4310.0	4420.0	205.0/ 750.0	470.0	835.0
HPRA3-SE 350 (F)	355.6	920.0	5010.0	4920.0	230.0/ 850.0	550.0	1160.0
HPRA3-SE 400 (F)	406.4	1020.0	5510.0	5420.0	255.0/ 940.0	600.0	1260.0
HPRA3-SE 450 (F)	457.2	1170.0	6100.0	6000.0	290.0/1050.0	660.0	1400.0
HPRA3-SE 500 (F)	508.0	1270.0	6500.0	6400.0	320.0/1200.0	710.0	1805.0
HPRA3-SE 550 (F)	558.8	1370.0	6900.0	6800.0	345.0/1300.0	785.0	2160.0
HPRA3-SE 600 (F)	609.6	1470.0	7150.0	7000.0	380.0/1400.0	835.0	2565.0

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.

### TYPICAL INSERTION LOSS FIGURES FOR HPRA-3 & HPRA3-SE TYPE UNITS (Not Binding)



The HPRA3 & HPRA3-SE (Side-Entry) type exhaust gas silencers utilizing both the high and low frequency expansion/reflection principles as well as the high frequency dissipative techniques of the mineral fibre packed straight line silencer. These complimentary energy conversion systems offer the ultimate conversion rate efficiency of noise energy into heat energy available, which is then dissipated to atmosphere by the silencer casing. The two concepts acting together provide a design that gives enhanced broad spectrum response at all frequencies. This produces an exhaust gas silencer with an overall noise reduction capability of approximately 45dB(A) dependant upon the engine firing frequency and power output of the main driver concerned with a lower pressure drop than the HP series. Acoustically treated versions are readily available with increased insertion loss capabilities if required.

It can be used singularly as a high grade silencer on most pumping and irrigation internal combustion driven installations, medium and large power generation plants and similar power packages where noise is perceived as a decisive problem to local surroundings. Due to the exhaust gas silencers effect on the whole frequency range this design is mainly used as a primary silencer for both land based power generation applications as well as a multitude of marine installations. The design can also be close coupled or remotely mounted to a HSL or HSL-SE series dissipative silencer to reduce exhaust gas noise to an extremely low more acceptable emission level suitable for any environment, where the need arises.

Consult PGS Engineering Staff for further details prior to order.