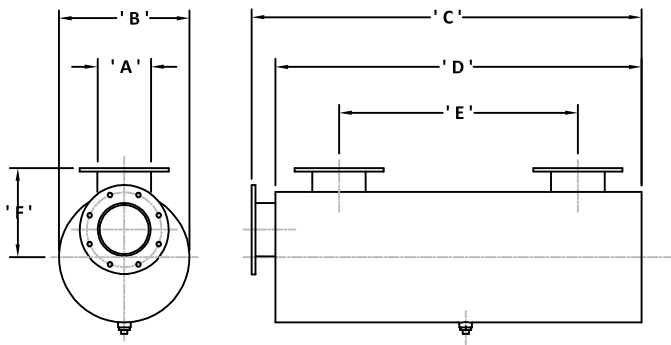




HWLS & HWSLS Type: Marine Water Injection or Lift Type Exhaust Gas Silencers. 25/35dB(A) Insertion Loss

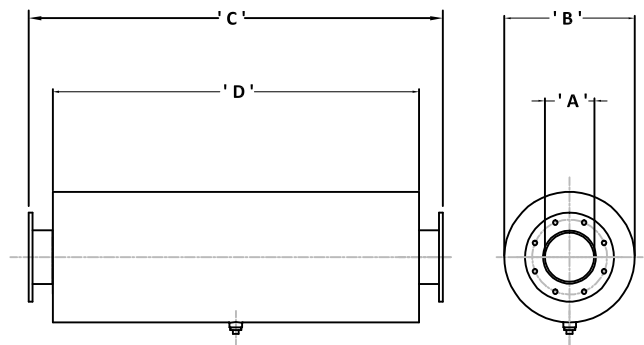
AXIAL INLET & AXIAL OUTLET VERSIONS



Silencer Part Number	'A'	'B'	'C'	'D'	'E'	'F'	Wt. (kg)
HWLS 050 (F & S)	50.8	200.0	500.0	425.0	300.0	175.0	12.0
HWLS 063 (F & S)	63.5	230.0	575.0	500.0	350.0	190.0	14.0
HWLS 075 (F & S)	76.2	280.0	675.0	600.0	450.0	215.0	18.0
HWLS 090 (F & S)	88.9	320.0	770.0	680.0	480.0	235.0	24.0
HWLS 100 (F & S)	101.6	360.0	840.0	750.0	510.0	280.0	32.0
HWLS 125 (F)	127.0	460.0	990.0	900.0	640.0	330.0	55.0
HWLS 150 (F)	152.4	510.0	1340.0	1250.0	1000.0	380.0	77.0
HWLS 175 (F)	177.8	560.0	1440.0	1350.0	1100.0	430.0	100.0
HWLS 200 (F)	203.2	660.0	1590.0	1500.0	1200.0	455.0	140.0
HWLS 225 (F)	228.6	710.0	1790.0	1700.0	1400.0	480.0	210.0
HWLS 250 (F)	254.0	760.0	1990.0	1900.0	1500.0	530.0	330.0
HWLS 300 (F)	304.8	810.0	2400.0	2300.0	1800.0	610.0	400.0
HWLS 350 (F)	355.6	910.0	2750.0	2650.0	2100.0	660.0	500.0

'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 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.
 Larger sizes are available upon request as well as bespoke design and manufacture.
 All units can be installed vertically or horizontally without detriment acoustically.
 Manufactured throughout in 316L stainless steel, self colour with an optional clear lacquered or varnish protective coating alternative materials available if required.
 Optional end inlet cleaning port available as shown, complete with counter flange, gasket and bolting sets, if required.

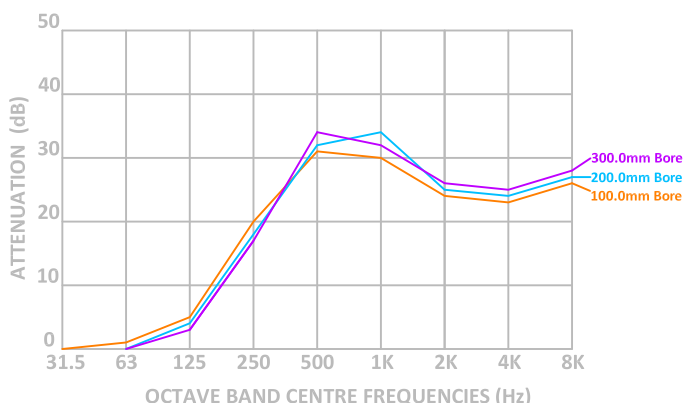
RADIAL INLET & AXIAL OUTLET VERSIONS



Silencer Part Number	'A'	'B'	'C'	'D'	Wt. (kg)
HWSLS 050 (F & S)	50.8	140.0	800.0	650.0	5.7
HWSLS 063 (F & S)	63.5	203.0	900.0	750.0	10.2
HWSLS 075 (F & S)	76.2	203.0	1000.0	850.0	12.8
HWSLS 090 (F & S)	88.9	260.0	1000.0	850.0	24.0
HWSLS 100 (F & S)	101.6	260.0	1150.0	1000.0	29.0
HWSLS 125 (F)	127.0	360.0	1150.0	1000.0	40.0
HWSLS 150 (F)	152.4	360.0	1400.0	1250.0	47.0
HWSLS 175 (F)	177.8	410.0	1500.0	1350.0	77.0
HWSLS 200 (F)	203.2	410.0	1650.0	1500.0	100.0
HWSLS 225 (F)	228.6	460.0	1750.0	1600.0	140.0
HWSLS 250 (F)	254.0	460.0	2050.0	1900.0	210.0
HWSLS 300 (F)	304.8	510.0	2200.0	2000.0	349.0
HWSLS 350 (F)	355.6	560.0	2500.0	2300.0	410.0

All units are manufactured from 316L stainless steel to BS-EN 10088 Part 2, 1.4404 or equal.
 The standard external protection is self colour, with an optional clear varnish or lacquered protective coating.
 Alternative materials of construction are available if required.
 All units are supplied with drain points, as required.
 The standard units are supplied flanged to BS 10 Table 'D' or similar as required.
 Plain spigot ends are available for fitment to suitable high temperature marine hose by use of worm drive clips if required.
 All units should be inserted downstream of the water injection point and angled between 2 to 5 degrees to allow sea water to flow out when not in use.

TYPICAL INSERTION LOSS FIGURES FOR HWLS & HWSLS TYPE MARINE UNITS (Not Binding)



The HWLS & HWSLS types. These down stream sea water injection type exhaust gas silencers are relatively simple energy converters utilizing expansion/resonance and volumetric changes to the exhaust gas energy in the HWLS type for low frequency attenuation, or alternatively excitation of the different individual fibre lengths in the acoustic infill to create friction in the HWSLS high frequency version. In both cases the resulting heat energy is carried away in the cooling sea water flow. Both designs give approximately 25-35dB(A) insertion loss with a fairly high pressure drop which directly proportional to the cooling water flow rates used. Both products are generally used as single stand alone equipment in both commercial or military applications for marine main propulsion and power generation modules. The selection is totally dependant upon the final noise levels required particularly when in areas where the noise level can be considered to cause some irritation to local marine vessels or when in overnight moorings and in the immediate vicinity of the vessel when under power. However, under some circumstances the HWSLS design can be fitted downstream of the HWLS water lift silencer in the exhaust gas line prior to discharge overboard to reduce exhaust gas noise levels to an extremely low almost in audible perception. The silencers are only offered in 316L type stainless steel or other exotic materials or glass reinforced materials to resist salt water contamination, Please consult: PGS Engineering staff for further details prior to order.