

Xtreme

DIESEL GENERATORS

Powered by

ISUZU
Kubota



Xtreme Reliability -

Airman Japan Designed Engineered and Manufactured for use in Rental, Construction and Mining.

Xtreme Efficiency -

Using only the best premium Japanese engines such as Kubota and Isuzu.

Xtreme Performance -

Maintenance Free brushless Alternator and minimal soundwave distortion for sensitive equipment use.

Xtreme Mobility -

Exceptionally compact and lightweight.

Xtreme Protection -

All Weather construction to eliminate rain penetration of the machine.

Xtreme Back Up -

Not only are these ultimate Generators supported by 12 month International Warranties but Blue Diamond Machinery operates a mechanical workshop and has mobile field support.

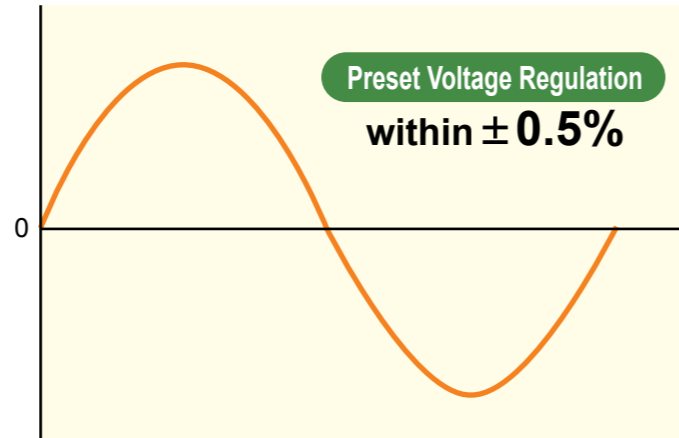
Xtreme Environmental Awareness -

Ultra Quiet (60 DB at 1 M range!) and meets Japans very tight emissions regulations.

High Generating Performance

Better Generating Performance

SDG series generators are coupled to low transient reactance alternator and reinforced damper coil. This increases the negative-phase-sequence current capability and minimizes the output waveform distortion. Therefore, they are suitable for wide range of non-linear load such as inverter, thyristor, computer control, discharge lighting, precision instruments and instrumental device.



Environmental Friendly

Low Noise Level

Operating noise has been minimized with low noise engines, equipped with highly attenuated muffler and special exhaust system design. All SDG models (excluding SDG100S) are adopted panel structure to minimize structural clearance and reduce internal space. Combined inlet duct design further reduces the overall noise level.

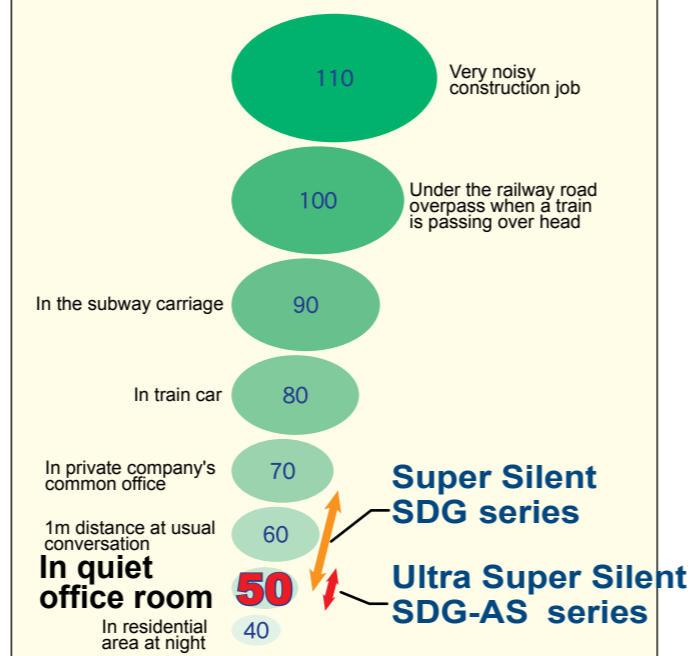
Exhaust muffler system is mounted on special design support structure to reduce vibration.

Super Silent
SDG13S~220S

Ultra Super Silent
SDG25AS~150AS

Silent
SDG300S~800S

Noise Level (at 7 meters distance from the machine at no load) dB(A)



Clean Engine

SDG13~45(excluding 25AS,45S-F,45S), 100S-F~150S-F generators are approved by Japanese Government Authority as "The 3rd Diesel Engine Driven Construction Machinery Exhaust Gas Regulation". Other generators are approved by Japanese Government Authority as "The 2nd Diesel Engine Driven Construction Machinery Exhaust Gas Regulation".

Blowby Gas (SDG13~100,125S-F,150S-F)

The generators have been newly designed to circulate the blowby gas inside the machine (PCV system). They are driven by such environmental friendly engine to keep the generator outside as well as the inside from being stained.

Customised Options

Blue Diamond Machinery offers customisation to your specific requirements

Extended Fuel Tank Range Options

Mine Specification

- ✓ Heavy Duty Bunded Fuel Tank
- ✓ Lockable Battery Isolator
- ✓ Emergency Stop
- ✓ RCD Protection
- ✓ Fire Extinguisher



SDG 13 with extended 40 hour run time tank. The Skid Fabricated was for Heavy Duty use in the unforgiving Australia Rental Market. This unit was part of a fleet order for a large dewatering company.



Parallel Operation

Using Com Ap controllers two SDG 150's were set up to share load running a asphalt plant on a BHP site in Western Australia.



Trailer Mounted

Airman generators are popular in the rental markets due to the bullet proof quality and strong compact canopy. This makes the units ideal for Trailer



Mechanical Service

We offers a range of preventative maintenance and service options for Diesel Generators sold by us, or others.

Monthly Service Plans

Routine and Preventative Maintenance is essential for the long term performance of your generator. A Standby generator can sit for long periods of time without use and so it is important it is properly maintained, so that when it is required it keeps your business running. Blue Diamond offer 3, 6 and 12 monthly options or we can work with you to find a solution that works for your business.

For Prime Power Sets or Larger Fleets we can customise a plan to your requirements.

Call our Operations Manager Chris Simpson on **0439 665 960** to discuss.

Emergency

Field based emergency response due to mechanical failure is unfortunately going to occur. Equipped with expert mechanical staff and a national network of service agents we are equipped to deal with any issue.

Fabrication

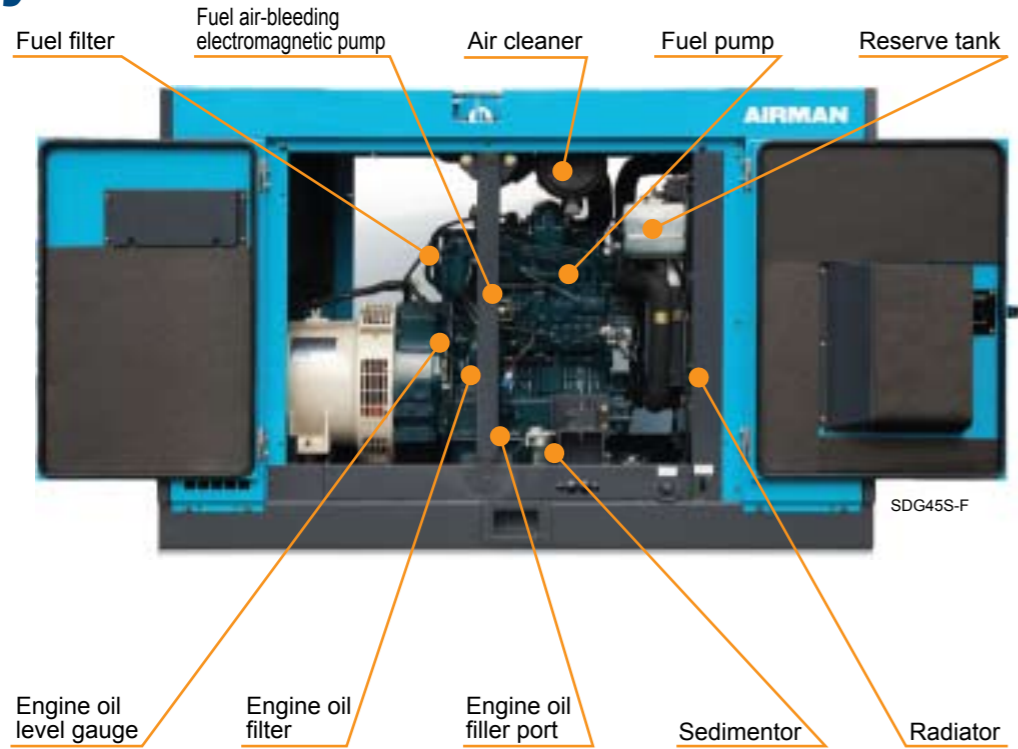
Custom fabrication is a big part of what we do. Custom Fuel Tanks, Custom Skids and Bunds, Lifting and Protective Frames are manufactured for our Kewdale workshop.

Parts

Blue Diamond stocks spare parts for all equipment we sell and we are able to source parts from a variety of manufacturers for diesel generators, compressors and welders.



Easy Maintenance



Maintenance with Great Ease

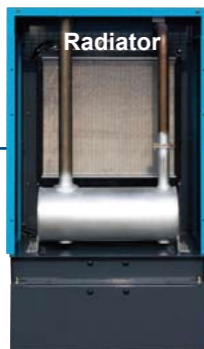
Daily inspection such as engine oil and coolant level can be done by opening the right side door. For SDG45 & 60, one battery of two mounted batteries has been eliminated, thus dedicated to reducing industrial waste and maintenance cost.

Mounting and Demounting Fuel Tank

Mounting and demounting fuel tank has been made easier by making the bottom floor entirely flat. It is easy to clean the interior by removing the fuel tank.

Inspection and Cleaning Radiator

For SDG series inspection of radiator and cleaning radiator can be easily performed by removing both side front covers and dividable fan shrouds.



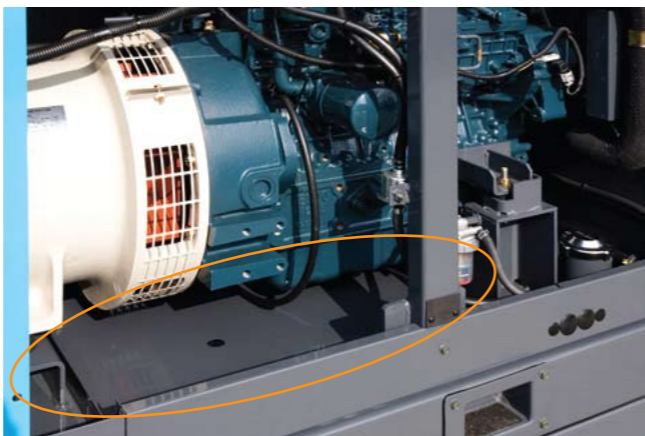
Maintenance Cycle

Model	Engine oil	Oil filter	Fuel filter	Air element
SDG13,25,220	250 ※1	500 ※1	500	1,000
SDG45~150	500 ※1	500 ※1	500	1,000
SDG300	250 ※1	250 ※1	500	1,000
SDG400,500	500 ※2	500 ※2	500	1,000

※1 For the items marked with a asterisk, first run in oil / filter change 50hr. ※2 For the items marked with a asterisk, first run in oil / filter change 250hr.

Flat Frame (SDG13~300, excluding 60AS/100S/150AS)

The interior of the machine is flatly constructed so as to be easily cleaned.



Newly-Designed Panel Construction (excluding 100S)

The bonnet is of panel constructed type for easily dismantling and assembling for maintenance.

Operation

Engine Starting Efficiency

For SDG13~220, engine preheating system consists of quick heating glow plug to easily start up engine in low temperature conditions. SDG220~500 are driven by high start-up engine which exercises great power for earth auger and vibro-hammer operations requiring instant electric flow. Start-up characteristics have been more improved for electric motor start-up as well as turbo charger and governor improved.

Electronic Governor

(SDG13~45, 100S-F~150S-F, 220, 400, 500)

Stable engine speed can be secured because engine speed is made easier to be adjusted. It is possible to select frequency and make fine adjustment of engine speed only by moving up and down "Switch for fine adjustment of engine speed". It is also possible easily to perform "Idling ↔ Operation" with the slowdown switch.

Control Panel

Control devices for generator and electrical appliances for engine are concentrated inside the control panel for better maintenance.



- ① Panel light
- ② Voltmeter
- ③ Ammeter
- ④ Frequency meter
- ⑤ Fuel gauge with hour meter
- ⑥ Water temperature meter
- ⑦ Three phase circuit breaker
- ⑧ Voltage regulator
- ⑨ Current selector switch
- ⑩ Leakage relay
- ⑪ Output indicator lamp
- ⑫ Warning lamps (For details, see the followings)
- ⑬ Starter switch
- ⑭ Panel light switch
- ⑮ Operation mode selection switch
- ⑯ Frequency selection switch

Safety

Completely Monitoring System

For SDG60~150, 300S, in order to eliminate the electric fault when restarting engine, they are provided with shunt trip as standard equipment to trip the main circuit breaker in case of emergency shutdown. If electric fault occurs, the warning lamp goes on and opens the generator breaker.

Warning Lamps & Emergency Stop

Model	Oil press. Drop	Water temp. rise	Over Speed	Overcurrent, Short-circuit	Electric Leakage	Faulty Battery charging	Air filter Clogging
SDG13~45	■	■	■	※1	□※1	■	□
SDG60~150, 300	■※1	■※1	■※1	※1	□※1	□	□
SDG100S-F~220S-F SDG220, 400, 500	■	■	■	※1	□※1	□	□

■ Warning lamp goes on and it causes Engine emergency stop
□ Warning lamp goes on
※1 Breaker OFF



SDG13S



SDG25S



SDG45S



SDG220S



SDG300S



SDG60S



SDG100S



SDG125S/150S



SDG400S



SDG500S

SPECIFICATIONS

Model	SDG13S -3B1		SDG25S -3B1		SDG45S -3A8		SDG60S -3A6		SDG100S -3A5		SDG125S -3A6		SDG150S -3A6			
Generator																
Frequency	Hz	50	60	50	60	50	60	50	60	50	60	50	60	50	60	
Rated Output	kVA	10.5	13	20	25	37	45	50	60	80	100	100	125	125	150	
Voltage	V	50Hz : 200 or 380 or 400 or 415 , 60Hz : 220 or 440(Dual Voltage)														
Power Factor	%	80														
Class of rating		Continuous														
Exciting Method		Brushless (with A.V.R.)														
No. of Phase		3-Phase , 4-Wire														
Diesel Engine																
Make and Model		Kubota D1503-K3A		Kubota V2403-K3A		Kubota V3800-DI-T-K2B		Isuzu BB-4BG1T		Isuzu DD-6BG1T		Hino J08C-UP		Hino J08C-UD		
No. of Cylinder		3		4		4		4		6		6		6		
Type(4Cycle,Water-Cooled)		Swirl Chamber				Direct Injection,Turbo charged								Direct Injection, Turbo charged,Intercooled		
Total Displacement	L	1.499		2.434		3.769		4.329		6.494		7.961		7.961		
Rated Output	PS(kW)	15.6(11.5)	18.6(13.7)	26(19.1)	32(23.7)	51.7(38.0)	62(45.6)	65.4(48.1)	78(57.4)	100(73.6)	124(91.2)	131(96.3)	153(112.7)	160(118)	190(140)	
Speed	rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	
Fuel		Diesel Fuel Oil														
Fuel Tank Capacity	L	58		70		100		135		225		250		250		
Fuel Consumption(50/75%Load)	L/hr	1.9/2.4	2.4/3.0	3.0/4.0	3.8/5.0	4.4/6.4	5.5/8.0	6.0/8.6	7.5/10.5	10.2/14.5	13.2/19.0	11.5/16.4	15.3/21.0	14.7/19.4	17.7/24.3	
Lubricating Oil Capacity	L	6.5		9.5		13.2		14		18		24.5		24.5		
Cooling Water Capacity	L	5.7		7.0		11		15		24		22		22		
Battery(Capacity 5hrs)	(Ah)	80D26R(55)×1		80D26R(55)×1		80D26R(55)×1		80D26R(55)×1		95D31R(64)×2		95D31R(64)×2		95D31R(64)×2		
Dimensions & Weight																
Overall Length	mm	1,480		1,550		1,870		2,090		2,600		2,990		2,990		
Overall Width	mm	650		700		860		860		1,000		1,180		1,180		
Overall Height	mm	950		980		1,220		1,220		1,400		1,480		1,480		
Net Dry Mass	kg	520		610		900		1,120		1,640		2,050		2,180		
Operating Mass	kg	580		680		1,010		1,260		1,870		2,300		2,430		
Sound Level																
Sound power level in decibels	dB	83		90		87		90		91		92		94		
Sound pressure level ^{※1}	dB(A)	56	57	59	63	57	60	59	63	61	64	63	65	63	66	

※For other voltages than above-mentioned ones, contact us.

※1 7m in four directions from machine and at no load

SPECIFICATIONS

Model	SDG220S -3A6		SDG300S -3A6		SDG400S -3A6		SDG500S -3A6			
Generator										
Frequency	Hz	50	60	50	60	50	60	50	60	
Rated Output	kVA	200	220	270	300	350	400	450	500	
Voltage	V	50Hz : 200 or 380 or 400 or 415 , 60Hz : 220 or 440 (Dual Voltage)								
Power Factor	%	80								
Class of rating		Continuous								
Exciting Method		Brushless (with A.V.R.)								
No. of Phase		3-Phase , 4-Wire								
Diesel Engine										
Make and Model		Mitsubishi 6D24-TLE2B		Komatsu SAA6D125E-2-B		Komatsu SA6D140E-3-B		Komatsu SAA6D140E-3-B		
No. of Cylinder		6								
Type(4Cycle,Water-Cooled)		Direct Injection,Turbo charged,Intercooled				Direct Injection,Turbo charged		Direct Injection,Turbo charged,Intercooled		
Total Displacement	L	11.94		11.04		15.24		15.24		
Rated Output	PS(kW)	246(181)	270(199)	315(232)	349(257)	421(310)	485(357)	519(382)	581(427)	
Speed	rpm	1,500	1,800	1,500	1,800	1,500	1,800	1,500	1,800	
Fuel		Diesel Fuel Oil								
Fuel Tank Capacity	L	390		490		490		490		
Fuel Consumption(50/75%Load)	L/hr	22.5/31.8	26.2/36.3	30.0/43.1	34.3/50.6	39.7/56.6	46.7/65.3	48.4/69.2	55.3/78.3	
Lubricating Oil Capacity	L	37		62		79		91.5		
Cooling Water Capacity	L	39		43.5		69		91.5		
Battery(Capacity 5hrs)	(Ah)	170F51(120)×2		170F51(120)×2		225H52(176)×2		225H52(176)×2		
Dimensions & Weight										
Overall Length	mm	3,700		3,900		4,150		4,550		
Overall Width	mm	1,300		1,400		1,400		1,600		
Overall Height	mm	1,670		1,760		2,040		2,090		
Net Dry Mass	kg	3,240		3,790		5,120		6,170		
Operating Mass	kg	3,630		4,290		5,670		6,750		
Sound Level										
Sound power level in decibels	dB	94		98		99		99		
Sound pressure level ^{※1}	dB(A)	65	65	66	69	67	70	67	70	



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Address: **6-8 Hodgson Way, Kewdale, WA 6105**

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ISO9001 : JQA-0581
ISO14001 : JQA-EM4670

AIRMAN®

 **SAFETY**

- Operate safely in accordance with proper operation manual.
- To prevent trouble and accidents, perform daily and preventive maintenance checks without fail.