

Denyo®

**SOUNDPROOF ENGINE-DRIVEN
COMPRESSORS**

DIS Series

Userfriendly

High
efficiency

Low fuel
consumption



DIS-130LB



DIS-70LB-C



DIS-600EHS

 **Denyo Co., Ltd.**

ECO-FRIENDLY COMPRESSORS

1

Highly reliable and durable

The advanced design of the non-friction, twin screw airends enables the DIS series compressors to generate consistently steady streams of air. The special bearings incorporated into the airends are carefully selected for use with twin screws and are highly reliable and durable.

2

High efficiency and low fuel consumption

The engine speed control system, developed by Denyo, incorporates a highly efficient screw that saves fuel and improves performance at all rated conditions, and guarantees high overall operating efficiency from no-load to full-load conditions. Fuel consumption has also been significantly improved at light and medium load level.

3

User-friendly operational panel

The control panel on the DIS series compressors has been placed on one end of the unit for easy operation.



DIS-130LR



DIS-655LRS

Automatic air bleeder

The DIS series compressors no longer require air bleeding, thanks to the development of an automatic air bleeder and emergency shut off device.

Easy inspection and maintenance

Compressors are equipped with a large-sized door and single-side access for daily inspection and easy maintenance. Also, the hood is designed for easy disassembly for maintenance and cleaning of the engine, radiator, compressor oil cooler, and fuel tank replacement.

More

Powerful

More

User Friendly



DIS-130LB

BOX Type



DIS-70LB-C

After Cooler Type



DIS-1850SB

Box (Large Capacity) Type

DIS Series



DIS-685ESS

Trailer Type



DIS-685ESS-D

Dry Air Type



DIS-600EHS

High Pressure Type

4

Low noise level

These small, lightweight compressors are equipped with a unique soundproofing system. The average value of noise at a distance of 7m is 64-76dB(A) at rated operation.

Clean Engine

The engine equipped with the Close Breathing System which keeps the blow-by gas in the machine, and the aluminum radiator which does not cause lead pollution is categorized as a construction machine that satisfies the emission gas regulation stage 3(55LB,70LB,130LB,130LB-C,70LB-C) stage 2, enforced by the Ministry of Land, Infrastructure and Transport.

5

Emergency shut-off device standard equipment

If a malfunction occurs, or the oil level in the engine drops too low (DIS-1300UB and 1850SB), the emergency shut-off device will automatically illuminate a warning light and stop the engine.

Malfunction		DIS-55~90	DIS-130~1850
Compressor	High discharged air temperature	○	○
	High water temperature	○	○
	Low lube oil pressure	○	○
Engine	Discharge battery	○	○
	Low engine speed	—	○
	Low residual tank pressure	—	○

○: Shut-off device —: No device

6

Air bleeding no longer necessary

Unlike larger units equipped with automatic air bleeder or emergency shut-off devices as standard equipment, the DIS-90 and smaller units no longer require air bleeding. The engine can be started at any time without air bleeding. For more information, refer to the emergency shut-off device and automatic air bleeder sections on the back cover page.

Salt damage virtually eliminated

DIS-600 and larger compressor models are coated with an anti-corrosive substance that prevents damage due to salt and moisture, and stainless steel bolts have also been used on the exterior. Denyo's high standards for electrical wiring and connector insulation have been utilized in these new and improved machines.

BOX Type

Transportation made easy

These lightweight and compact compressors feature a one-point lifting eye that makes moving the unit at the work site quick and easy.



DIS-55LB



DIS-70LB



DIS-90SB



DIS-130LB



DIS-180SB2



DIS-390ES

Specifications

Model	DIS-55LB	DIS-70LB	DIS-90SB	DIS-130LB	DIS-180SB2	DIS-390ES
-------	----------	----------	----------	-----------	------------	-----------

COMPRESSOR

Type	Rotary screw, single-stage compressor, oil cooled					
Rated Pressure MPa(psia)		0.69(100)		0.7(102)	0.69(100)	0.7(102)
Air Delivery m ³ /min(cfm)	1.56(55)	2.0(70)	2.5(90)	3.7(130)	5.1(180)	11.0(390)
Lube Oil Capacity L	8	10	12	15	19	50
Air Tank Capacity m ³	0.017	0.0199	0.0235	0.030	0.039	0.10
Service Cord Size x Qty	20A×1, 15A×1		20A×2		20A×3	20A×3, 50A×1, 15A×1

ENGINE

Model	Kubota D722-K3A	Kubota D905-K3A	Kubota D1005-KA	Yanmar 2TNV98-BD	Isuzu AA 4I E2	Isuzu DD-4RG1T
Type	Swirl chambered			Direct Injected		Direct injected, turbocharged
No. of Cylinders-Stroke	3-67×68	3-72×73.6	3-76×73.6	3-88×90	4-85×96	4-105×125
Displacement L	0.719	0.898	1.001	1.642	2.179	4.329
Rated Output kW (PS)	12.5(17)	16.2(22)	19.1(26)	26.5(36)	36.6(50)	80.9(110)
Rated Revolution min	3500	3600		3000	2600	2400
Fuel	Dise. fuel (ASTM No.2 or equivalent)					
Fuel Tank Capacity L	18	26	32	70	90	180
Fuel Consumption L/h	[2.5]2.9	[2.7]3.6	[3.3]4.4	[3.7]4.3	[4.2]6.1	[10.2]14.1
Lube Oil Capacity L	4.2	5.1		6.7	8.1	13
Coolant Capacity L	4.2	5.5	6.0	5.6	7.2	12
Battery x Quantity	55B24L×1	95D31R×1		80D26R×1	95D31R×1	80D26R×2

DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL

Length →	mm	1360	1515	1545	1700 (2632)	1650	2600 (3010)
Width →	mm	685	755	765	975 (1385)	1030	1300 (1520)
Height ←	mm	755	845	895	1050 (1420)	1060	1360 (1760)
Dry Weight kg		325	450	490	575 (680)	790	1520 (1780)
Sound Level → 7m dB(A)		64	65	67	68	80	70

NOTES: ※1 All models are equipped with 4-wire engine.

※2 The figures in [] are for maximum optional trailers.

※3 Fuel consumption data is at 50%/70% load condition.

※4 Sound level for noise high-speed mutual operator and is calculated by averaging the measurements at four points, each 7 meters from the source.

Trailer Type

All compressors, including trailer types, are equipped with a lifting eye.



DIS-685ESS



DIS-180SS2



DIS-800ESS



Parking brake is standard equipment.

All 4-wheel trailer type units are equipped with parking brakes.

Specifications

Model	DIS-180SS2	DIS-685ESS	DIS-800ESS
COMPRESSOR			
Type	Rotary screw, single-stage compressor, oil cooled		
Faled Pressure MPa (psi)	0.69(100)		
Air Delivery m ³ /min (cfm)	5.1 (180)	19.4(685)	22.7(800)
Lube Oil Capacity L	19	95	100
Air Tank Capacity m ³	0.039	0.20	0.27
Service Cock Size x Qty	20AX3	20AX3, 50AX1	
ENGINE			
Model	Isuzu AA-4LE2	Hino J08C-U7	
Type	Direct injected	Direct injected, Turbo-charged	
No. of Cyls. Bore x Stroke mm	4-85x96	6-114x130	
Displacement L	2.179	7.961	
Rated Output kW (PS)	36.6(50)	134.5(183)	144.5(197)
Rated Revolution min ⁻¹	2600	1800	2100
Fuel	Diesel fuel (ASTM No.2 or equivalent)		
Fuel Tank Capacity L	90	280	350
Fuel Consumption ^② L/h	[4.2]6.1	[19.0]23.4	[19.7]25.6
Lube Oil Capacity L	5.1	25.5	
Coolant Capacity L	7.2	25	
Battery x Quantity	95D31R×1	145F51×2	
DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL			
Length mm	1795	3630	3900
Width mm	1380	1600	
Height mm	1430	2035	
Dry Weight kg	860	3060	3140
Trailer No. of Tires x Tire Size ^④	2X' 45H-13-6PR	4XF 0.00-13.8R-14 R 0.50-14-8PR	
Sound Level ^④ 7m dB(A)	67	68	72

NOTES: ^① All models are equipped with 4-cycle engine.
^② Fuel consumption data is at 50% / 70% load condition.
^③ Maximum towing speed for trailer type units is 25km/h.
^④ Sound level reflects high speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.

High Pressure Type

The energy produced by this high-pressure compressor is applicable to innovative technologies and new machines.



DIS-600EHS



DIS-1070XS



DIS-1300UB

This type of screw compressors display full performance in a down-the-hole process and a large-diameter boring process and can be applied to groundimproving machines, pneumatic lifts, and concrete-blowing machines. The discharge pressure ranges from 1.03 MPa to 2.4 MPa.

The DIS-1070XS is also equipped with a two-stage discharge pressure selector to meet a wide range of application requirements.

Specifications

Model	DIS-600EHS	DIS-1300UB	DIS-1070XS
	TRAILER TYPE	BOX TYPE	TRAILER TYPE

COMPRESSOR

Type	Rotary screw, single-stage compressor, oil cooled (DIS-1070XS: two-stage compressor)		
Rated Pressure (MPa/psig)	1.03 (150)	1.27 (185)	2.40 (350) / 1.27 (185)
Air Delivery (m ³ /min(cfm))	17 (600)	36.8 (1300)	30.3 (1070)
Lube Oil Capacity (L)	95	220	210
Air Tank Capacity (m ³)	0.186	0.52	0.33
Service Cock Size x C'ly	20A×3, 50A×1	80A×1	20A×1, 50A×1

ENGINE

Model	Hino J08C-UT	Komatsu SA6D140-1	Mitsubishi S6R3-PTA
Type	Direct injected, turbocharged		
No. of Cylinders—Bore x Stroke (mm)	6-114×130	6-140×165	6-135×170
Displacement (L)	7.961	15.240	14.600
Rated Output (kW (PS))	138 (188)	327 (445)	342 (465)
Rated Revolution (min ⁻¹)	1800	1800	1800
Fuel	Diesel fuel (ASTM No.2 or equivalent)		
Fuel Tank Capacity (L)	280	660	680
Fuel Consumption (L/h)	[21.4]25.8	[53.0]62.2	[50.0]61.0 [44.2]56.0
Lube Oil Capacity (L)	25.5	80	85
Coolant Capacity (L)	25	142	75
Battery x Quantity	145F51×2	245H62×2	245H52×2

DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL

Length (mm)	3830*	4510	5160*
Width (mm)	1600	1870	2200
Height (mm)	2035	2210	2370
Dry Weight (kg)	3130	7480	6600
Trailer: No. of Tires x Tire Size (mm)	4×F: 6.00-13-8PR R: 6.50-14.3-PR	—	4×F: 7.50-16-12PR R: 7.50-16-8PR
Sound Level (7m) (dB(A))	70	—	76

NOTES: *1. All models are equipped with 4-cycle engine.
*2. Height is for mounted trailers.
*3. Fuel consumption data is at 50% / 70% load condition.
*4. Max. towing speed for trailer type units is 25km/h.
*5. Sound level reflects high speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.

Box (Large Capacity) Type

This-1850SB is used not only in the construction site but also in the factory, and the skiing ground as the air source.



DIS-1850SB

Specifications

Model	DIS-1850SB
	BOX TYPE

COMPRESSOR

Type	Rotary screw, single-stage compressor, oil cooled
Rated Pressure (MPa/psig)	0.69 (100)
Air Delivery (m ³ /min(cfm))	52.4 (1850)
Lube Oil Capacity (L)	220
Air Tank Capacity (m ³)	0.66
Service Cock Size x C'ly	1.510" x 100A×1

ENGINE

Model	Komatsu SA6D140-1
Type	Direct injected, turbocharged
No. of Cylinders—Bore x Stroke (mm)	6-140×165
Displacement (L)	15.240
Rated Output (kW (PS))	302 (411)
Rated Revolution (min ⁻¹)	1800
Fuel	Diesel fuel (ASTM No.2 or equivalent)
Fuel Tank Capacity (L)	400
Fuel Consumption (L/h)	[45.8]56.6
Lube Oil Capacity (L)	80
Coolant Capacity (L)	142
Battery x Quantity	245-H52×2

DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL

Length (mm)	4970
Width (mm)	2300
Height (mm)	2200
Dry Weight (kg)	6050
Sound Level (7m) (dB(A))	76

After Cooler Type

Denyo's high-performance after cooler prevents freezing by extracting moisture from the discharging air, while also eliminating the rust and grime build-up of spattering water. This also keeps the breaker from being overheated by the after cooler.



DIS-70LB-C



DIS-130LB-C

The compressor's after cooler and oil temperature regulator make it possible to maintain a constant discharge air temperature of no more than 15°C above ambient temperature. When the atmospheric temperature is below 0°C, a discharge pipe-selecting valve in the unit routes warm air around the after cooler, preventing freezing.

A drain separator eliminates humidity generated in the after cooler by more than 70%, while a pressure-retaining valve guarantees stable elimination of moisture.

Specifications

Model	DIS-70LB-C	DIS-90AC2	DIS-130LB-C	DIS-180AC	DIS-390ES-C
-------	------------	-----------	-------------	-----------	-------------

COMPRESSOR

Type	Rotary screw, single-stage compression, oil cooled				
Rated Pressure MPa(ps)	0.69(100)		0.7(102)	0.69(100)	0.7(102)
Air Delivery m ³ /min	2.0	2.5	3.7	5.1	11.0
Lube Oil Capacity L	10	12	15	19	50
Air Tank Capacity m ³	0.020	0.025	0.030	0.039	0.10
Service Cook Size x Qty	20A x 2		20A x 2, 20A x 1	20A x 3, 50A x 1, 15A x 1	

ENGINE

Model	Kubota C905-K3A	Kubota C1005-KA	Yanmar 31N/33-H1	Isozu AA-41E2	Isozu DD-46G1T
Type	Swirl chambered		Direct injected		Direct injected, turbocharged
Max. Cylinder-Bore Stroke mm	3-72x/3.6	3-76x/3.6	3-88x90	4-85x96.0	4-105x125
Displacement L	0.898	1.001	1.642	2.179	4.329
Rated Output kW (PS)	16.2(22)	19.1(26)	26.5(36)	36.6(50)	80.9(110)
Rated Revolution min ⁻¹	3600		3000	2600	2400
Fuel	Diesel fuel (ASTM No.2 or equivalent)				
Fuel Tank Capacity L	26	32	70	90	130
Fuel Consumption L/h	[2.7]3.6	[3.3]4.4	[3.7]4.8	[4.2]6.1	[10.2]14.1
Lube Oil Capacity L	5.1	5.1	6.7	8.1	13
Coolant Capacity L	4.5	6.0	5.6	7.2	12
Battery x Quantity	95D31R x 1		80D26R x 1	95D31R x 1	80D26 x 2

DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL

Length	mm	1800	1700* (2632)	1820	2800 (3910)**
Width	mm	755		1030	1300 (1520)
Height	mm	865	895 (1420)	1060	1360 (1760)
Dry Weight	kg	450	470 (710)	820	1570 (1830)
Sound Level \pm 7m dB(A)		64	67		70

NOTES: *#1 All models are equipped with 4-cylinder engine.

#2 The figures in () are for mounted optional battery.

#3 Fuel consumption data is at 25% load condition.

#4 Maximum towing speed for trailer type units is 25km/h.

#5 Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.

Dry Air Type

These compressors have built-in after-coolers/warmers, and so they can deliver high-temperature and dry air even if it rains.



DIS-685ESS-D

They are recommended for use in various work situations such as sand blasting and other operations that require a moisture-free work environment. These compressors are designed to supply high-temperature, dry compressed air, owing to a built-in oil separator, after cooler, drain separator and after-warmer.

One-touch switching will allow the operator to select low-temperature, dry air or high-temperature, dry air.

Specifications

Model	DIS-390ES-D	DIS-685ESS-D
	BOX TYPE	TRAILER TYPE

COMPRESSOR

Type	Rotary screw, single-stage compressor, oil cooled	
Rated Pressure MPa(ksi)	0.7(102)	
Air Delivery m ³ /min	11.0	19.4
Lube Oil Capacity L	50	105
Air Tank Capacity m ³	0.10	0.192
Service Cook Size x Qty	20A x 3, 50A x 1, 15A x 1	20A x 3, 50A x 1

ENGINE

Model	Isozu DD-46G1T	Iino J08C-UT
Type	Direct injected, turbocharged	
Max. Cylinder-Bore Stroke mm	4-105x125	6-114x130
Displacement L	4.329	7.961
Rated Output kW (PS)	80.9(110)	134.5(183)
Rated Revolution min ⁻¹	2400	1800
Fuel	Diesel fuel (ASTM No.2 or equivalent)	
Fuel Tank Capacity L	130	280
Fuel Consumption L/h	[10.2]14.1	[19.0]23.4
Lube Oil Capacity L	50	25.5
Coolant Capacity L	12	25
Battery x Quantity	80D26R x 2	145F5 x 2

DIMENSIONS, WEIGHT, TRAILER & SOUND LEVEL

Length	mm	2740 (3910)**	3950
Width <td>mm</td> <td>1000 (1520)</td> <td>1600</td>	mm	1000 (1520)	1600
Height <td>mm</td> <td>1360 (1760)</td> <td>2035</td>	mm	1360 (1760)	2035
Dry Weight <td>kg</td> <td>1630 (1890)</td> <td>3300</td>	kg	1630 (1890)	3300
Trailer No. of Ties x Tie Size		4x F: 5.00-12.8-20 R: 5.00-13.8-24	4x F: 6.00-13.8-20 R: 6.50-14.8-20
Sound Level \pm 7m dB(A)		70	69

Host of Options

Innovative Hose Reel

Denyo has developed a sturdy, lightweight and easily attachable one-touch hose reel which can be mounted on top of compressors. With slight modifications, a single storage reel can be mounted on DIS-55-90 series models, while DIS-130-180 units can accommodate two hose reels. The units can also be stacked for effective storage.



Caster and Trailer

Trailers and casters can be fitted to generators to facilitate on-site movement. (For DIS-55 to 180 compressors are four-wheel casters or two-wheel trailer; DIS-390ES is four-wheel trailer) Bolt connectors make mounting and dismounting simple.



Fuel Line Switching Device(3-Way Valve)

On DIS-390 and larger units, this device makes it possible to switch from the compressor's built-in tank to a line for an auxiliary tank for long operation, without refueling. Models DIS-600EHS, 685ESS/ESS-D, 800ESS and 1850SB are equipped with this device as standard equipment.



Denyo

The Denyo trademark is widely recognized as a brand, and is a registered trademark in 90 countries around the world.

The specifications given here are subject to change without notice.

Direct inquiries to the nearest Denyo distributor or to Denyo Co., Ltd.

Denyo Co., Ltd.

Head office: 2-8-5, Nishinbashi-horidomecho, Chuo-ku,
Tokyo 103-8568, Japan
Tel: 81-3-6861-1111 Fax: 81-3-6861-1181