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fiac
AIR COMPRESSORS

AIRBLOK BD, DR
AIRBLOK .../SD Inverter

Super silent rotary screw air compressors

Italian technology since 1977 for a choice that lasts overtime

SINCE 1977

FIAC Bologna (Italy) Headquarter

FIAC S.p.A. has been active in the international market since 1977. During the last four decades our company has grown and evolved around our core focus of the customer and their unique requirements and expectations. With our customer's satisfaction in mind, FIAC constantly seeks to expand and improve its products, while maintaining the company's core values of creativity, flexibility and adjustment to market requirements.
FIAC ensures the quality of its products and the efficiency of the organization by constantly measuring its own performance for continual improvement.

All levels of the organization are involved in the implementation of our core goals and the results are shared throughout the company. FIAC S.p.A. has always been renowned in the world of compressed air for the high quality of its products and for its customer service. The UNI EN ISO 9001:2008 standards perfectly compliment our quality control process at FIAC, which is based on continuous improvements aimed at the complete satisfaction of our customer.

Our technology

Air end

The screw unit combines low running speeds and high efficiency thanks to the perfect mating of rotors, optimal profile design and perfect number of lobes. The result is reliability with a significant reduction in noise level.
The unit's reliability is further guaranteed by the oil-injection cooling system and oversized load carrying thrust bearings, which feature a double lip oil seal ring that perfectly seals the rotor drive shaft.

The right solution for each application

Our customers represent small producers, big industry and all sizes in between. Each of our customers has very different needs.
We at FIAC aim to supply each of our customers with a continuous and reliable source of compressed air for their unique application. During our 35 plus years of experience, and through close relationships with our customers, we have developed a comprehensive range of screw compressors that are the best fit for a variety of different applications, installations and environmental conditions.

Simple and easy maintenance

The reliability of our products is the result of the exhaustive testing process implemented for each of the components utilized in the production of the AIRBLOK BD series.
Each of our products has been designed to ensure easy access to components. The result makes maintenance much quicker and less expensive.
In collaboration with its highly qualified technical staff, FIAC has developed a scheduled maintenance kit, which comes complete with a detailed service manual that make maintenance jobs quicker and more efficient.

GSP: Genuine FIAC spare parts

Every component of a FIAC screw compressor is designed, produced and supplied to our customers to provide long term reliability.
Only Genuine FIAC Spare Parts, which have passed the most severe tests of quality and performance, can provide the best compressor performance, longevity and at a minimal cost. It is always important that FIAC air compressor maintenance must be performed by a professional and authorized technician and the spare parts are FIAC parts marked with the official GSP stamp.

GSP® GENUINE SPARE PARTS

AIRBLOK

HIGH EFFICIENCY MOTOR

The FIAC AIRBLOK 10-60 HP series of belt driven rotary screw compressors, integrate technical innovations, which are the result of a thorough analysis of modern industrial requirements.
The results are powerful, reliable and easy to use machines with minimum maintenance.

The efficient layout and the top quality of the main components allows these compressor packages to deliver the very best in air quality and energy efficiency while operating at low noise levels.

Super silent rotary screw air compressors

Fiac Air Energy Control
The robust on board Microprocessor allows for safe and reliable management and total control of the full range of compressor operations.
The LCD display provides the following constant real-time statistics during operation:

- Working pressure (bar - psi)
- Oil temperature (°C - °F)
- Working conditions
- Max. and min. pressure setting.
- Organizer: programs daily work cycles and periods of inactivity.
- Programmed maintenances schedule.
- Remote control; On/Off function.
- Warning and stop alarms display and log.
- Management of multiple units: feature LEAD / LAG / STANDBY CONTROL.

Electric Components
High efficiency IE2 motor.
IP54 Protection class,Class F insulation.
Ventilated control cabinet.

AIRBLOK BD

Belt drive super silent rotary screw air compressors

HIGH EFFICIENCY MOTOR

FIAC AIRBLOK BD 102-602 series rotary screw compressors feature an efficient electric motor with a high performance / low rotation speed air end, as well as a forced ventilation system to ensure optimum heat exchange.
The conical, cast-iron coupling pulley ensures stable power transmission and low mechanical stress.

The efficient layout of primary components guarantees quick and economical maintenance thanks to the easy access through a system of removable panels equipped with safety locks.
During the design phase, simplicity of the compressor installation was also given priority.

High efficiency compression unit

Lobe quantity, type of profile and rotor dimensions guarantee:

- Maximized compressed air capacity.
- Lower rotor speed.
- Increased journal and thrust bearing
- life expectancy.
- Increased reliability.

Optimized separation system: 3 stages

Separation oil/air by centrifugal force in the separator tank.
Gravitational separation through intermediate divider.
High efficiency separator in cartridge or Spin-on system.
Filter clogging monitoring sensor.

Powerful Cooling Fan

Silent.
Powerful.
Low peripheral speed.
Thermostatically controlled.
High air exchange inside the cabinet.

Belt transmission

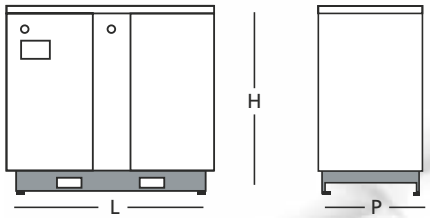
Belt maintenance is quick and safe through an adjustable belt tensioning system.
AIRBLOK models BD 102 - 302 come equipped with an automatic, pre-calibrated, springs belt tensioning system.
AIRBLOK models 402 - 602 are equipped With a manual guided sliding plate belt Tensioning system.

Efficient cooling system and ventilation

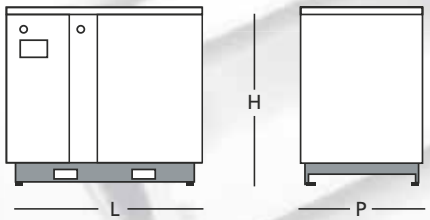
Ventilation system features:

- Aluminum cooler with large radiating surfaces for efficient cooling.
- Removable fiber crossed pre-filter for easy cleaning.
- Compressed air aftercooler.

AIRBLOK BD



AIRBLOK 102 ÷ 302



AIRBLOK 402 ÷ 602

AIRBLOK BD 102 ÷ 602

CE

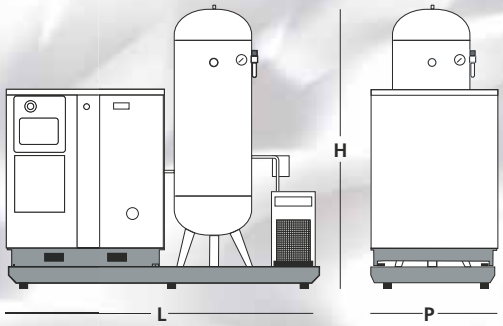
Belt drive

Type	dB (A)	ℓ/min	CFM	m³/h	bar	psi	BSP	HP	kW	LxPxH mm / in			kg / *lb*
AIRBLOK 102 BD	65	1200 1020 810	42 36 29	72 61.2 48.6	8 10 13	116 145 188	3/4"	10	7,5	930 *36.6*	695 *27.4*	1120 *44.1*	278 *613*
AIRBLOK 152 BD	67	1650 1500 1170	58 53 41	99 90 70.2	8 10 13	116 145 188	3/4"	15	11	930 *36.6*	695 *27.4*	1120 *44.1*	283 *624*
AIRBLOK 202 BD	68	2400 2035 1770	85 72 62	144 122 106	8 10 13	116 145 188	3/4"	20	15	930 *36.6*	695 *27.4*	1120 *44.1*	288 *635*
AIRBLOK 252 BD	66	2860 2520 2020	101 89 71	172 151 121	8 10 13	116 145 188	1"	25	18,5	1215 *47.8*	870 *34.2*	1300 *51.2*	415 *915*
AIRBLOK 302 BD	67	3360 3050 2430	119 108 86	201.6 183 146	8 10 13	116 145 188	1"	30	22	1215 *47.8*	870 *34.2*	1300 *51.2*	435 *959*
AIRBLOK 402 BD	65	4780 4110 3720	169 145 131	286.8 246.6 223.2	8 10 13	116 145 188	1-1/4"	40	30	1500 *59.1*	1000 *39.4*	1450 *57.1*	707 *1559*
AIRBLOK 502 BD	65	5670 5120 4460	200 181 157	340 307 267.6	8 10 13	116 145 188	1-1/4"	50	37	1500 *59.1*	1000 *39.4*	1450 *57.1*	715 *1576*
AIRBLOK 602 BD	65	6850 6190 5530	242 219 195	411 371 332	8 10 13	116 145 188	1-1/4"	60	45	1500 *59.1*	1000 *39.4*	1450 *57.1*	778 *1715*

Standard input 400V/50Hz/3~.
Version available: 230V/50Hz/3 - 220V/60Hz/3 - 380V/60Hz/3

Belt drive super silent rotary screw air compressors

SKID



Automatic condensate drain valve kit

HIGH EFFICIENCY MOTOR

AIRBLOK rotary screw Compressors, offer complete compressed and treated air stations. Models of either 10, 15 or 20 HP;, feature a 270 l CE approved vertical air receiver; FQ 3 Micron filter with differential pressure gauge; BY PASS for air dryer; TDRY series refrigerated air dryer; Steel base plate with six shock absorbers and easily accessible lifting points.

SKID 102/270 ÷ 202/500

Belt drive

CE

Type			ISO 1217					BSP	OUTPUT		LxPxH			
	ℓ	dB (A)	ℓ/min	CFM	m³/h	bar	psi	BSP	HP	kW	mm / *in*			kg / *lb*
SKID 102/270	270	66	1200 1020 810	42 36 29	72 61.2 48.6	8 10 13	116 145 188	1/2"	10	7,5	2150 *83.8*	720 *28*	2070 *80.7*	480 *1087*
SKID 152/270	270	67	1650 1500 1170	58 53 41	99 90 70.2	8 10 13	116 145 188	1/2"	15	11	2150 *83.8*	720 *28*	2070 *80.7*	485 *1078*
SKID 202/270	270	67	2400 2035 1770	85 72 62	144 122 106	8 10 13	116 145 188	3/4"	20	15	2150 *83.8*	720 *28*	2070 *80.7*	490 *1089*
SKID 102/500	500	67	1200 1020 810	42 36 29	72 61.2 48.6	8 10 13	116 145 188	1/2"	10	7,5	2150 *72.4*	720 *28*	2300 *89.7*	520 *1155*
SKID 152/500	270	68	1650 1500 1170	58 53 41	99 90 70.2	8 10 13	116 145 188	1/2"	15	11	2150 *72.4*	720 *28*	2300 *89.7*	525 *1167*
SKID 202/500	500	68	2400 2035 1770	85 72 62	144 122 106	8 10 13	116 145 188	3/4"	20	15	2150 *72.4*	720 *28*	2300 *89.7*	530 *1178*

AIRBLOK DR

Direct drive super silent rotary screw air compressors

HIGH EFFICIENCY MOTOR

FIAC AIRBLOK DR series, direct drive, rotary screw compressors are the perfect answer to the many diverse requirements of the compressed air world. The air end is directly coupled to the electric motor. The direct coupling combined with lower rotor speed eliminates power losses.

The use of sturdy and reliable components and the electronic AIR ENERGY CONTROL, are just a few of the features that contribute to the long life expectancy and trouble free operation of the motor and at minimal operation cost.

High efficiency compression unit

The screw unit is highly efficient thanks to the perfect mating of rotors, precise profile design and optimal lobe quantity.
The result is maximized air capacity with a significant reduction in noise level.
The compressors are characterized by their reliability, which is insured by the oversized load carrying journal and thrust bearings, which feature a double lip Viton oil seal ring that perfectly seals the air end shaft.

Powerful radial electrofan

Silent.
Powerful.
Low peripheral speed.
High volume air exchange in cabinet.

LESS LOSS transmission

Flexible joint constructed of elastomeric material.
Transmission without power loss.
No ordinary maintenance.
Noise-less.
Practical electric motor design results in easy maintenance.

Suction valve regulator

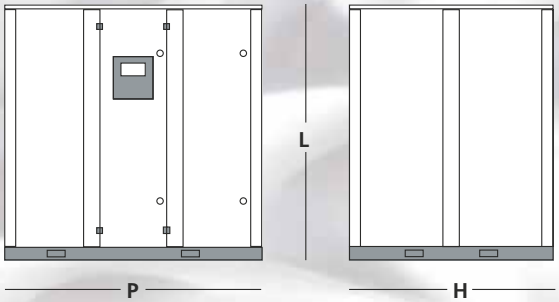
Electro-pneumatically operated butterfly valve.
Integrated automatic, non-return valve.
Total elimination of troublesome oil return problems in air filter.

Optimized separation system: 3 stages

Centrifugal oil/air separation in the separator tank.
Gravitational separation through intermediate divider.
High efficiency coalescent cartridge or spin - on filter system.
Clogged filter monitoring sensor.

AIRBLOK DR

Direct drive super silent rotary screw air compressors



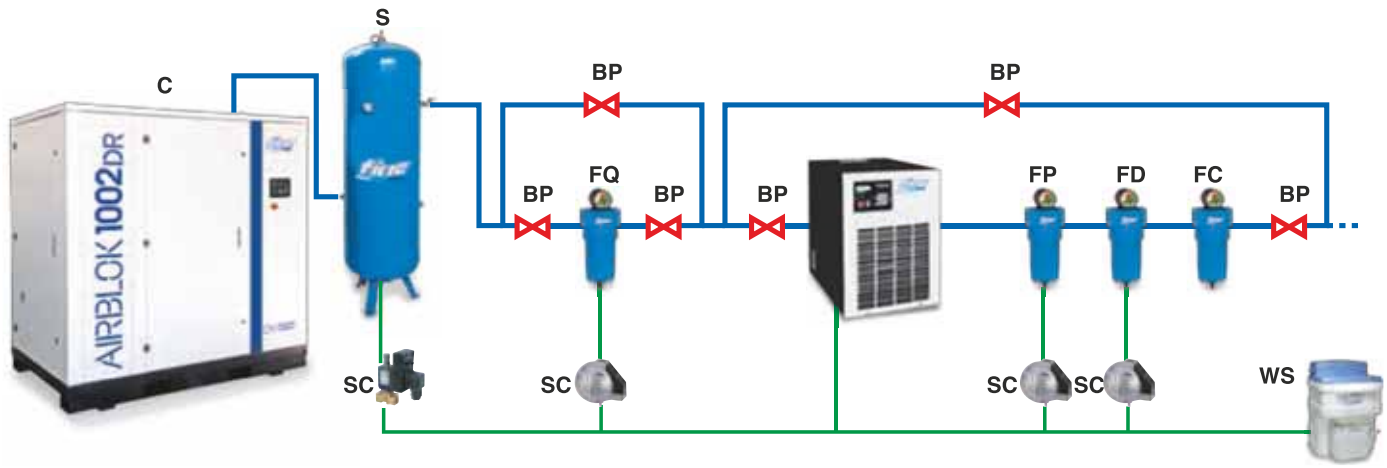
AIRBLOK DR 752 ÷ 1252

Direct drive

CE

Type	dB (A)	ℓ/min	CFM	m³/h	bar	psi	BSP	HP	kW	LxPxH mm / *in*	kg / *lb*
AIRBLOK 752 DR	72	9000 8050 7300	318 284 255	540 483 438	8 10 13	116 145 188	1-1/2"	75	55	2200 1100 1950 *86.6 43.3 76.7*	1550 *3417*
AIRBLOK 1002 DR	73	12600 10200 8850	445 360 312	756 612 531	8 10 13	116 145 188	1-1/2"	100	75	2200 1100 1950 *86.6 43.3 76.7*	1750 *3858*
AIRBLOK 1252 DR	75	16000 14200	565 502	960 852	8 10	116 145	1-1/2"	125	90	2200 1100 1950 *86.6 43.3 76.7*	1850 *4078*

Standard input 400V/50Hz/3~.
Version available: 230V/50Hz/3 - 220V/60Hz/3 - 380V/60Hz/3



C= Rotary screw compressor
S= Air receiver
SC= Condensate drain valve
BP= Bypass (This allows you to shut-off part of the installation for possible maintenance requirements)
FQ= Interception filter
FP/FD= Coalescence filter
FC= Activated carbon filter
WS= Watersep (The oil/water separator guarantees total separation)

AIRBLOK Inverter

HIGH EFFICIENCY MOTOR

Speed drive control

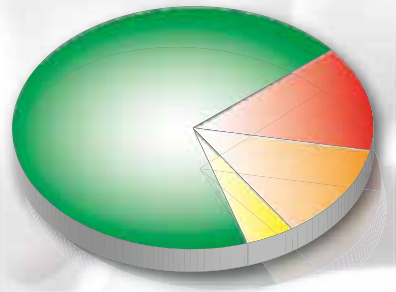
The combined, long term energy and maintenance costs of other compressors may be considerably higher than the initial investment in the AIRBLOK SD series.
The AIRBLOK SD series, especially useful in applications with fluctuating air consumption needs, can adjust speed based on air consumption and therefore reduce energy cost.

The speed drive controlled compressor maintains a proportionate energy and air consumption ratio, thus insuring ideal performance.
As indicated by the following charts, energy consumption by the speed drive controlled compressor is directly proportionate to the compressed air requested with a greater energy savings than compressors without speed drive control.

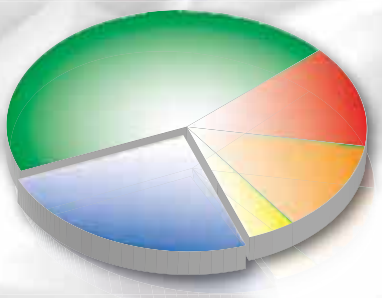
Super silent rotary screw air compressors with speed drive control

●	Energy consumption
●	Maintenance
●	Investment
●	Installation
●	Medium energy saving 35%

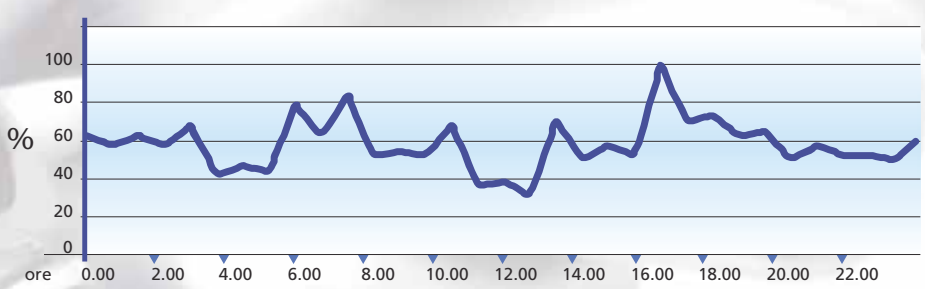
Without speed drive control



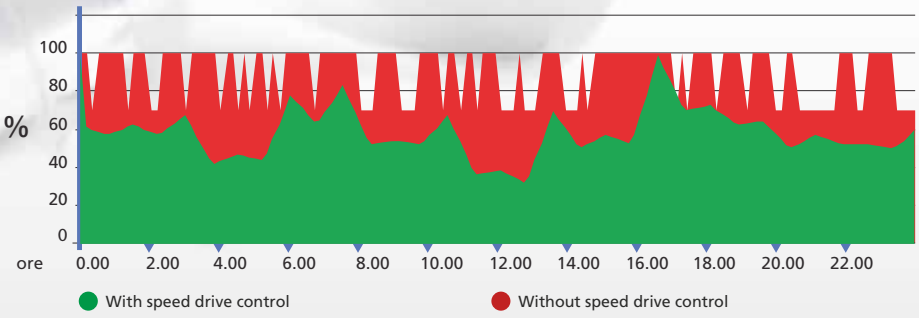
With speed drive control



Air requirement



Energy consumptions



Fiac Air Energy Control

Microprocessor of rugged durability
Safe and reliable.
Management and total control of the compressor operating parameters.

T =	total working time (n° working hours per day - n° working day per years - 5 year)
C =	energy cost kWH
P =	compressor kw power
L =	percentage of energy consumption
E =	motor efficiency
M =	cost of maintenance per 5 years
K =	cost of investment

Plan your saving (x)

Several studies have shown that the typical screw compressor load overtime is between 50-70%.
The table, located above, compares the energy consumption for compressors with star/delta start and those equipped with speed drive control by inverter.
The side by side comparison clearly illustrates the energy savings when using the AIRBLOK SD.

$$x = T \cdot C \cdot P \cdot \frac{L}{E} + M + K$$

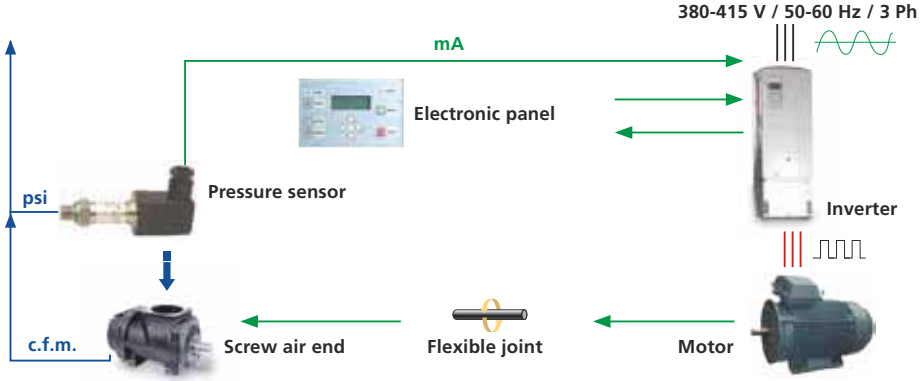
Power consumption

for D.O.L. compressors - motor efficiency 85-90%

LOAD	100	90	80	70	60	50	40
POWER	100%	97%	94%	91%	88%	85%	82%

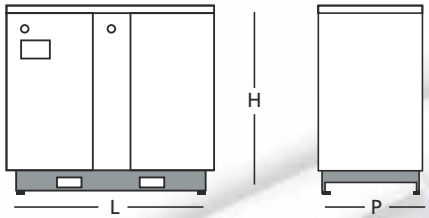
for speed drive compressors - motor efficiency 94%

LOAD	100	90	80	70	60	50	40
POWER	100%	89%	78%	68%	57%	47%	37%

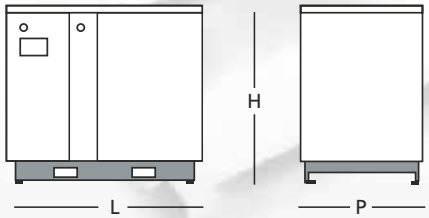


AIRBLOK BD/SD Inverter

Super silent rotary screw air compressors with speed drive control



AIRBLOK 102 ÷ 302



AIRBLOK 402 ÷ 602

AIRBLOK BD/SD 252 ÷ 602

CE

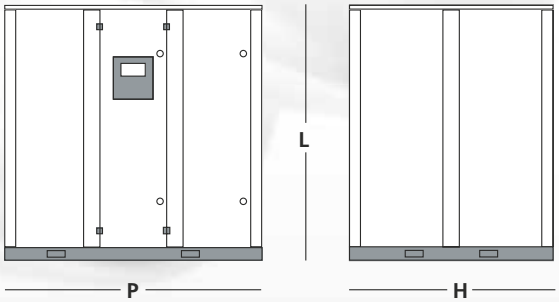
Belt drive

Type		ISO 1217 min			ISO 1217 max					OUTPUT		BSP	LxPxH			
	dB (A)	ℓ/min	CFM	m³/h	ℓ/min	CFM	m³/h	bar	psi	HP	kW	BSP	mm / *in*			kg / *lb*
		820	29	49.2	2900	102	174	8	116							
AIRBLOK 252 BD-SD	66	780	27.5	46.8	2540	89.7	152.4	10	145	25	18.5	1	1215 *47.8*	900 *35.4*	1300 *51.2*	523 *1153*
		750	26.5	45	2120	74.9	127.2	13	188							
		860	30.3	51.6	3400	120	204	8	116							
AIRBLOK 302 BD-SD	67	810	28.6	48.6	3120	110	187	10	145	30	22	1	1215 *47.8*	900 *35.4*	1300 *51.2*	543 *1197*
		780	27.5	46.8	2670	94.2	160	13	188							
		1715	60.6	102.4	4900	173	294	8	116							
AIRBLOK 402 BD-SD	65	1620	57.2	97.2	4370	154	262	10	145	40	30	1-1/4"	1500 *58.5*	1000 *39.4*	1450 *56.5*	963 *2123*
		1430	50.5	85.8	3770	133	226	13	188							
		2140	75.4	128.4	6085	215	365	8	116							
AIRBLOK 502 BD-SD	65	1940	68.4	116.4	5530	195	331.8	10	145	50	37	1-1/4"	1500 *58.5*	1000 *39.4*	1450 *56.5*	971 *2141*
		1830	64.7	109.8	4800	169	288	13	188							
		2600	91.8	156	7400	261	444	8	116							
AIRBLOK 602 BD-SD	65	2400	84.8	144	6500	229	390	10	145	60	45	1-1/4"	1500 *58.5*	1000 *39.4*	1450 *56.5*	1033 *2277*
		2100	74.2	126	5500	194	330	13	188							

Standard input 400V/50Hz/3~.
Version available: 230V/50Hz/3 - 220V/60Hz/3 - 380V/60Hz/3

AIRBLOK DR/SD Inverter

Super silent rotary screw air compressors with speed drive control



AIRBLOK DR/SD

Direct drive

CE

Type		ISO 1217 min			ISO 1217 max					OUTPUT		BSP	LxPxH			
	dB (A)	ℓ/min	CFM	m³/h	ℓ/min	CFM	m³/h	bar	psi	HP	kW	BSP	mm / *in*			kg / *lb*
AIRBLOK 402 DR-SD	68	1540 1420 1250	54 50 44	92.4 85.2 75	4950 4400 3800	174 155 134	297 264 228	8 10 13	116 145 188	40	30	1-1/4"	1750 *68.9*	950 *37.4*	1700 *66.9*	980 *2161*
AIRBLOK 502 DR-SD	69	2050 1900 1750	72 67 62	123 114 105	6100 5600 4900	216 197 173	366 336 294	8 10 13	116 145 188	50	37,5	1-1/4"	1750 *68.9*	950 *37.4*	1700 *66.9*	1050 *2315*
AIRBLOK 752 DR-SD	72	2950 2830 2710	104 100 96	177 170 162.6	9000 8050 7300	319 284 258	540 483 438	8 10 13	116 145 188	75	55	1-1/2"	2200 *86.6*	1100 *43.3*	1950 *76.7*	1600 *3527*
AIRBLOK 1002 DR-SD	73	2970 2850 2780	105 101 98	178.2 171 166.8	12600 10200 8850	445 350 313	756 612 531	8 10 13	116 145 188	100	75	1-1/2"	2200 *86.6*	1100 *43.3*	1950 *76.7*	1800 *3968*
AIRBLOK 1252 DR-SD	75	2850 2791	101 98	171 167.5	14000 13000	494 459	840 780	8 10	116 145	125	90	1-1/2"	2200 *86.6*	1100 *43.3*	1950 *76.7*	1900 *4189*

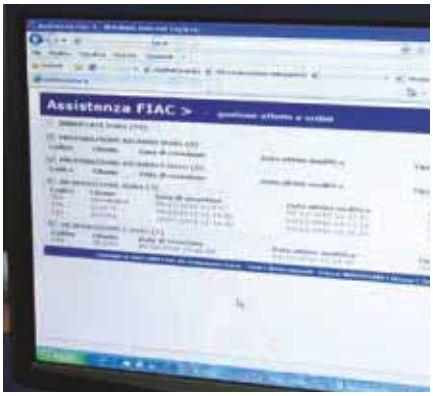
Standard input 400V/50Hz/3~.
Version available: 230V/50Hz/3 - 220V/60Hz/3 - 380V/60Hz/3

Electrical control boxes

MONITORING
Electronic system for control and monitoring of complex screw compressors installations (max 4 units).
Customer managed setting of compressed air net min/max pressure, stand-by and warning pressure.
Compressors connection by CAN-bus port or by relay control.
Main functions include: priority start, rotation priority, equalization and working hours.
Calendar allows convenient setting of the start/stop at daily, monthly, or yearly intervals.
Continuous temperature control at installation site.
Remote control and automatic restart.
Alarm port for light or audio signal.
Remote monitoring by connection to PC.

In designing the FIAC AIRBLOK rotary screw compressors we have chosen only the highest quality components to insure reliability.
More over, all internal parts are easily accessible for maintenance.
Thanks to our unsurpassed knowledge of the technology, our continual investment in monitoring equipment and constant training of our engineers and technicians, as well as with our other partners throughout
the world, FIAC is capable of supplying one of the most highly advanced rotary screw air compressors in the industry.

PC Visualization
Remote monitoring at a distance of up to 200 meters.



Camp Plus 4
The FIAC Camp Plus 4 system for measurement and analysis includes: pressure sensor, clamps and cables.
Upon request: flow meter sensor, dew point sensor, and second pressure sensor.

Customer care, service and maintenance

FIAC a solution for every need

Only qualified service technicians and genuine FIAC spare parts, which have passed the most stringent of quality control tests, should be used in the care and maintenance of your AIRBLOK rotary screw air compressor.
This will insure that the compressor operates at peak efficiency, thereby extending the lifetime of the compressors and is your assurance of the highest level of protection and in reducing operating costs.

TanitiDea

FIAC IN THE WORLD

Sistema di gestione della qualità certificato UNI EN ISO 9001:2008. / *Quality system certified according to UNI EN ISO 9001:2008.*

Associazione Costruttori Pompe e Compressori
Italian Association of Pump and Compressor Manufacturers

FIAC SpA, nell'ottica di migliorare costantemente i prodotti, si riserva di aggiornare le caratteristiche presenti in questo catalogo senza preavviso. I requisiti dei prodotti sono indicati chiaramente. Le immagini sono puramente indicative.

To guarantee the continued improvement of our range of products, FIAC reserves the right to up-date the technical characteristics shown in this catalogue without prior warning. Specifications of products are clearly indicated. Photographs are for illustrative purposes only.

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