



shamal



BORA

**Direct driven
rotary screw
compressors**

75 - 250 kW

■ Compact and efficient

BORA compressor, single stage lubricated, ranging from 75 to 250 kW, is the optimal response to the modern industry compressed air demands.

Compact, with direct drive and operational pressures 7.5, 10 and 13 bar. The complete BORA range is available with continuous flow control by means of an inverter drive (VS version).

The machine is fitted with electronic controller, aftercooler, condensate separator (external for models 280 and 340) with time based drain.

BORA in the standard configuration, is air cooled and it is designed for continuous operation 24/7.

Optional versions have available water cooling and heat recovery "oil to water" heat exchanger.

■ Optimum efficiency

BORA series compressors are equipped with high efficiency electric motors with protection degree IP55 and insulation class F.

Power transmission to the airend is carried out by means of a flexible coupling and a helical gearbox. This configuration allows the perfect alignment of the shafts, granting optimal power transmission.

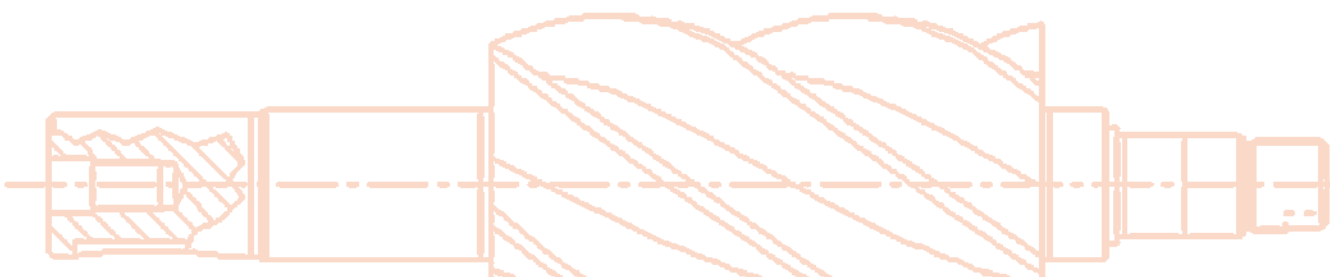
■ Silent, clean, easy to use and maintain

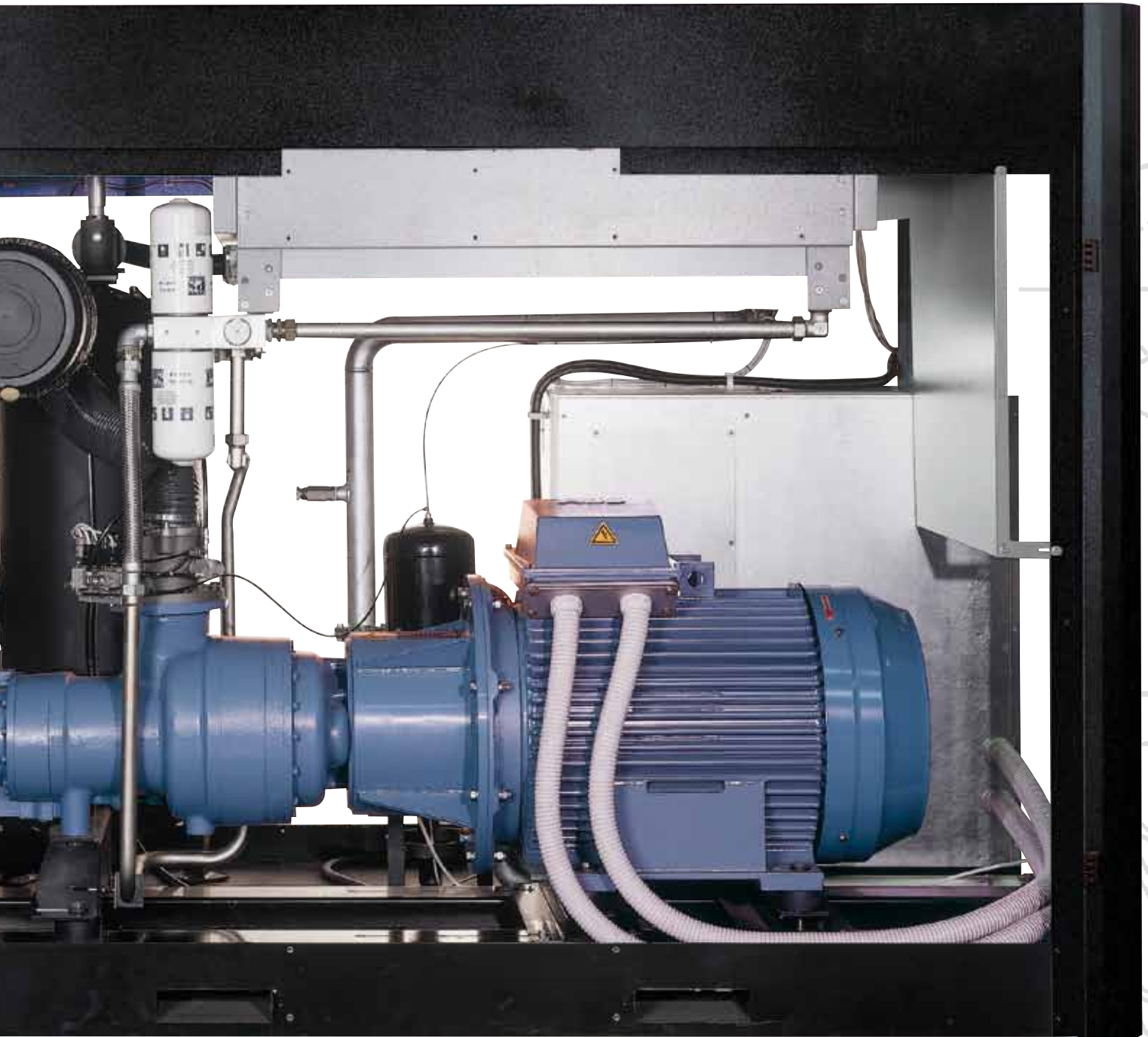
BORA standard configuration includes a prefilter panel which separates dust and powder in order to keep the interior of the machine clean and easy to maintain.

Wide opening doors with safety locks grant ease of access for maintenance and service.

Coolers are easily accessible. Separated fans with Class F IP54 motors provide maximum cooling air flow: the number of fans depends on the size of the compressor.

Due to the type of fans, their position and the excellent soundproofing of the whole machine, BORA compressors are extremely silent.





■ RotEnergyPlus

As well as all Shamal rotary screw compressors, also BORA are ready to use and equipped with RotEnergyPlus cooling lubricant to synthetic base. RotEnergyPlus separates quickly from water, reduces friction and energy consumption, extends maintenance intervals and guarantees excellent bearing lubrication, providing great protection against rust and corrosion.

■ Cooling fans

Fan cooling system with thermostatic control by the electronic controller. Four fans in models BORA 280 and 340; two fans in models 150, 180 and 220. Single fan in models 100 and 125.



■ Tank and oil-separator filter

Steel CE separator tank with internal separator cartridge granting optimal filtering degree and long service intervals. Minimum pressure and non return valve easily accessible for easy maintenance and check. ASME, "U" Stamp, Nema or SQL tanks available on request.



■ Oil filter and temperature control

Double oil filter to grant total operational safety. Filter support includes the thermostatic element. The working temperature of the compressor is controlled by both the throttling of the oil flow through the thermostatic element and the switching of the fans according to the air end discharge temperature.



■ Direct drive

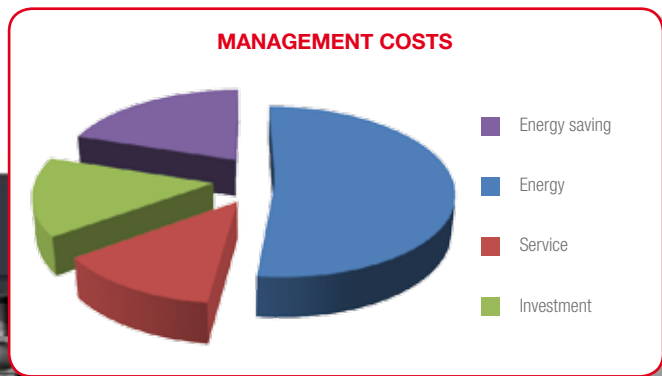
Direct drive realized through a flexible coupling and a helical gearbox. Maximum efficiency in the power transmission, excellent alignment, maintenance free.





■ Microprocessor based electronic controller

Continuous monitoring of the operational parameters is performed by a microprocessor based electronic controller, programmable with different languages. The display indicates working pressure, internal pressure, warning for separator high delta P, overpressure, motor overload, airend discharge temperature, motor rotation check, service hours countdown (oil, oil filter, separator and air filter), load and total running hours. The controller includes a timer suitable for calendar based start and stop of the compressor.



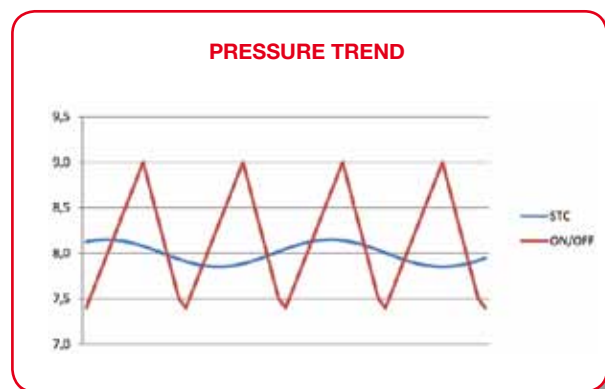
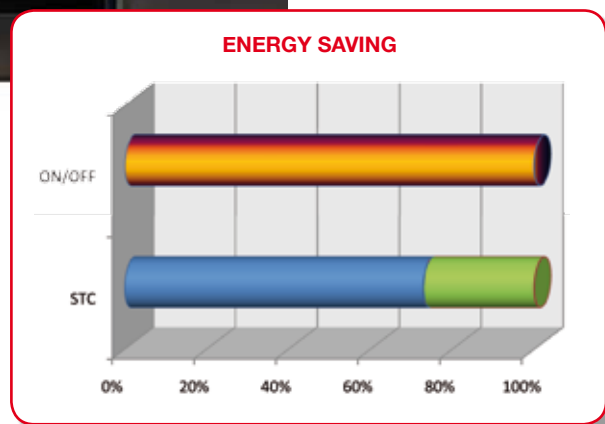
The whole BORA range is available with inverter drive (VS = Variable Speed).

The application of inverter technology to screw compressors in the BORA range allows best performance stabilizing the working pressure of the machine by regulation of the motor speed and of the air end.

Depending on the real compressed air demand of the network, the electronic controller regulates the frequency drive adapting the motor speed.

A decrease of the network pressure corresponds to a higher air demand; the compressor shall increase the air delivery, then accelerate. Viceversa, a network pressure increase is related to a lower air demand and then the compressor has to decrease the air delivery, therefore it decelerates.

Immediate advantage of this regulation is the constant network pressure, the optimized electric power consumption, matching the real compressed air demand, and the minimum wear of the mechanical components, which are usually stressed during the idling/load switching of the standard compressors.



BORA

Code	Model	Motor		Free air delivered			Working pressure		Noise level dB(A)	Connection BSP	Product dimensions W x D x H (cm)	Net weight	
		kW	HP	l/min.	m ³ /h	c.f.m.	bar	psi				kg	Lbs
V60MJ92SHA460	BORA 10008	75	100	12600	756	445	7.5	109	73	2"	180 x 110 x 178	1620	3572
V60MB92SHA460	BORA 10010	75	100	10500	630	371	10	145	73	2"	180 x 110 x 178	1620	3572
V60MD92SHA460	BORA 10013	75	100	8800	528	311	13	189	73	2"	180 x 110 x 178	1620	3572
V60MR92SHA460	BORA 12508	90	125	15900	954	561	7.5	109	75	2"	238 x 130 x 178	2420	5336
V60MF92SHA460	BORA 12510	90	125	13400	804	473	10	145	75	2"	238 x 130 x 178	2420	5336
V60MS92SHA460	BORA 12513	90	125	11600	696	409	13	189	75	2"	238 x 130 x 178	2420	5336
V60MT92SHA460	BORA 15008	110	150	18700	1122	660	7.5	109	75	3"	290 x 155 x 215	3240	7144
V60MI92SHA460	BORA 15010	110	150	16300	978	575	10	145	75	3"	290 x 155 x 215	3240	7144
V60MU92SHA460	BORA 15013	110	150	13900	834	491	13	189	75	3"	290 x 155 x 215	3240	7144
V60MV92SHA460	BORA 18008	132	180	23400	1404	826	7.5	109	74	3"	290 x 155 x 215	3300	7277
V60MN92SHA460	BORA 18010	132	180	19900	1194	702	10	145	74	3"	290 x 155 x 215	3300	7277
V60MZ92SHA460	BORA 18013	132	180	16300	978	575	13	189	74	3"	290 x 155 x 215	3300	7277
V60MX92SHA460	BORA 22008	160	220	26800	1608	946	7.5	109	75	3"	290 x 155 x 215	3850	8489
V60MQ92SHA460	BORA 22010	160	220	23400	1404	826	10	145	75	3"	290 x 155 x 215	3850	8489
V60MY92SHA460	BORA 22013	160	220	19900	1194	702	13	189	75	3"	290 x 155 x 215	3850	8489
V60MA92SHA460	BORA 28008	200	275	34800	2088	1228	7.5	109	75	5"	330 x 210 x 215	4550	10033
V60MC92SHA460	BORA 28010	200	275	28800	1728	1017	10	145	75	5"	330 x 210 x 215	4550	10033
V60MG92SHA460	BORA 28013	200	275	24400	1464	861	13	189	75	5"	330 x 210 x 215	4550	10033
V60ML92SHA460	BORA 34008	250	340	40500	2430	1430	7.5	109	76	5"	330 x 210 x 215	4700	10364
V60MO92SHA460	BORA 34010	250	340	36800	2208	1299	10	145	76	5"	330 x 210 x 215	4700	10364
V60MW92SHA460	BORA 34013	250	340	28800	1728	1017	13	189	76	5"	330 x 210 x 215	4700	10364

BORA VS (Variable Speed)

Code	Model	Motor		Free air delivered (max. - min.)			Working pressure		Noise level dB(A)	Connec- tion BSP	Product dimensions W x D x H (cm)	Net weight	
		kW	HP	l/min.	m ³ /h	c.f.m.	bar	psi				kg	Lbs
V60MJ97SHA460	BORA VS 10008	75	100	12100 - 1900	726 - 114	427.1 - 67.1	7.5	109	73	2"	180 x 110 x 178	1650	3638
V60MB97SHA460	BORA VS 10010	75	100	10600 - 2000	636 - 120	374.2 - 70.6	10	145	73	2"	180 x 110 x 178	1650	3638
V60MR97SHA460	BORA VS 12508	90	125	15200 - 3240	912 - 194.4	536.6 - 114.4	7.5	109	74	2"	238 x 130 x 178	2150	4741
V60MF97SHA460	BORA VS 12510	90	125	13400 - 4110	804 - 246.6	473 - 145.1	10	145	74	2"	238 x 130 x 178	2150	4741
V60MT97SHA460	BORA VS 15008	110	150	18500 - 3900	1110 - 234	653.1 - 137.7	7.5	109	75	3"	290 x 155 x 215	2860	6306
V60MI97SHA460	BORA VS 15010	110	150	15900 - 4500	954 - 270	561.3 - 158.9	10	145	75	3"	290 x 155 x 215	2860	6306
V60MV97SHA460	BORA VS 18008	132	180	22200 - 3550	1332 - 213	783.7 - 125.3	7.5	109	75	3"	290 x 155 x 215	3200	7056
V60MN97SHA460	BORA VS 18010	132	180	19000 - 5400	1140 - 324	670.7 - 190.6	10	145	75	3"	290 x 155 x 215	3200	7056
V60MX97SHA460	BORA VS 22008	160	220	25600 - 5000	1536 - 300	903.7 - 176.5	7.5	109	74	3"	290 x 155 x 215	3350	7387
V60MQ97SHA460	BORA VS 22010	160	220	22900 - 5120	1374 - 307.2	808.4 - 180.7	10	145	74	3"	290 x 155 x 215	3350	7387
V60MA97SHA460	BORA VS 28008	200	275	33500 - 9450	2010 - 567	1182.6 - 333.6	7.5	109	76	5"	330 x 210 x 215	4670	10297
V60MC97SHA460	BORA VS 28010	200	275	28500 - 9900	1710 - 594	1006.1 - 349.5	10	145	76	5"	330 x 210 x 215	4670	10297
V60ML97SHA460	BORA VS 34008	250	340	42100 - 9900	2526 - 594	1486.1 - 349.5	7.5	109	76	5"	330 x 210 x 215	4830	10650
V60MO97SHA460	BORA VS 34010	250	340	35700 - 9600	2142 - 576	1260.2 - 338.9	10	145	76	5"	330 x 210 x 215	4830	10650

VS models at 13 bar available on demand.

* Free air delivery as per ISO 1217 Annex C at 7 - 9.5 - 12.5 bar at the compressor outlet. For "VS" variable speed models, we indicate the min. and max. values.

** ± 3 dB (A) as PNEUROP/CAGI PN-NTC 2.3 (1 meter)

Authorized distributor:



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