



Oil-injected

Rotary Screw Air Compressors

SIGMA Series

Installed motor power 5.5 - 400 Kw 7.5 - 550 hp

Free air delivery from 0.36 to 74.49 m³/min, Pressure 7.5 - 13 bar



Farafan Hava Co



OIL-INJECTED ROTARY SCREW AIR COMPRESSOR(FIXED SPEED)

Features and advantages



01

Smart Controller

- Increased reliability: durable keyboard, user-friendly, multilingual user interface.
- Improved ease of use: intuitive navigation system with main operation conditions include warning indications, maintenance scheduling etc.



02

Stainless Steel Oil Pipe And Air Pipe

- High temperature resistant (400=752°F) and low temperature resistant (-270- - 518°F), high pressure resistant.
- Ultra-long life(80 years), completely leak free and maintenance free.



03

Intelligent Control And Protection

- safe and reliable. Reasonable, simple and clear wiring,
- easy for maintenance.
- Good protection function ensures the stable running of the compressor unit.



04

Premium Efficiency Drive Motor

- Premium efficiency Totally Enclosed Fan Cooled (TEFC) IP54/IP55 motor (Class F insulation) protects against dust and chemicals etc.
- Long-term stable operation even in harsh environments up to 55 (131°F)



05

State-of-the-art Screw Element

- Original GHH air end.
- Advanced SAP profile design
- The material of the rotors is American specialty steel.



06

Efficient Radiator

High quality aluminum fins and copper coil materials with good thermal conductivity ensure the perfect cooling efficiency.

OIL-INJECTED ROTARY SCREW AIR COMPRESSOR(VSD)

Features and advantages



01

Variable Speed Drive

- Different variable speed drive brands available, such as INVT, ABB, Part Drive etc.
- VSD: variable volume, controlled costs: there is no unnecessary power generated, the DENAIR DVA models can reduce energy costs by 35% or more.

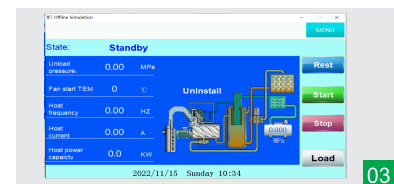
Life cycle costs of the compressor can be reduced by an average of 22%.



02

State-of-the-art Screw Element

- Original DENAIR air end.
- Advanced SAP profile design
- The material of the rotors is American specialty steel.
- Superior Sweden SKF element bearings.



03

Smart Controller

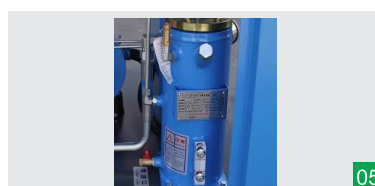
- Increased reliability: durable keyboard, user-friendly, multilingual user interface.
- Improved ease of use: intuitive navigation system with main operation conditions include warning indications, maintenance scheduling etc.



04

Energy-saving 1:1 Direct Driven Design

KTR brand maintenance-free coupling makes the motor drive the air end without transmission loss.



05

Efficient Separation System

- Reduction of pressure drops and energy costs.
- Low oil consumption ensures minimal maintenance costs and long compressor lifetime.
- Quality air with low oil content:
 - three step air-oil separation (centrifuge, gravity, filter)
 - oil content: less than 3 ppm by weight
 - hinged cover for easy separator element change



06

Air Inlet Valve

Large suction area

Valve seal adopts fluoro rubber

Integrated design, failure and low maintenance rate

Cast aluminum to avoid rust and temperature change

Technical parameters

Farafanhava Co

Model	Maximum Working Pressure		Capacity FAD*								Installed Motor Power		Driving Model & Cooling Method	Noise level**	Dimensions(mm)			Weight	Air outlet pipe diameter
			50Hz				60Hz												
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	[dB(A)]	L		W	H	kg			
	bar(g)	psig	m³/min	cfm	m³/min	cfm	kW	hp											
SIGMA-5.5	7.5	109	0.51	0.85	18	30	0.48	0.80	17	28	5.5	7.5	Belt Driven	62	900	600	860	315	R1/2"
	8.5	123	0.48	0.80	17	28	0.47	0.78	17	28	5.5	7.5		62	900	600	860	315	R1/2"
SIGMA-7.5	7.5	109	0.67	1.12	24	40	0.65	1.09	24	39	7.5	10		62	900	600	860	350	R1/2"
	8.5	123	0.66	1.10	23	39	0.64	1.07	23	38	7.5	10		62	900	600	860	350	R1/2"
	10.5	152	0.60	1.00	21	35	0.55	0.91	19	32	7.5	10		62	900	600	860	350	R1/2"
	13.0	189	0.48	0.80	17	28	0.43	0.72	16	26	7.5	10		62	900	600	860	350	R1/2"
SIGMA -11	7.5	109	1.18	1.97	42	70	1.00	1.66	35	59	11	15		62	1050	650	900	410	R3/4"
	8.5	123	1.06	1.76	37	62	0.98	1.64	34	58	11	15		62	1050	650	900	410	R3/4"
	10.5	152	0.87	1.45	31	51	0.87	1.45	31	51	11	15		62	1050	650	900	410	R3/4"
	13.0	189	0.68	1.13	24	40	0.67	1.12	24	40	11	15		62	1050	650	900	410	R3/4"
SIGMA-15	7.5	109	1.52	2.54	54	90	1.52	2.53	53	89	15	20	Direct Driven Air Cooling	64	1100	650	920	455	R3/4"
	8.5	123	1.50	2.51	53	88	1.50	2.50	52	88	15	20		64	1100	650	920	455	R3/4"
	10.5	152	1.18	1.97	42	70	1.12	1.86	40	66	15	20		64	1100	650	920	455	R3/4"
	13.0	189	1.14	1.91	40	67	1.10	1.83	39	65	15	20		64	1100	650	920	455	R3/4"
SIGMA-18	7.5	109	1.93	3.21	68	113	2.18	3.63	77	128	18.5	25		64	1300	800	1050	485	R1"
	8.5	123	1.82	3.03	64	107	2.12	3.54	75	125	18.5	25		64	1300	800	1050	485	R1"
	10.5	152	1.74	2.90	61	102	1.42	2.37	50	84	18.5	25		64	1300	800	1050	485	R1"
	13.0	189	1.14	1.91	40	67	1.40	2.34	49	83	18.5	25		64	1100	650	920	485	R1"
SIGMA-22	7.5	109	2.14	3.57	76	126	2.22	3.70	79	131	22	30		66	1300	800	1050	510	R1"
	8.5	123	2.13	3.55	75	125	2.17	3.61	77	128	22	30		66	1300	800	1050	510	R1"
	10.5	152	1.80	3.00	64	106	2.11	3.52	74	124	22	30		66	1300	800	1050	510	R1"
	13.0	189	1.78	2.97	63	105	1.43	2.38	50	84	22	30		66	1300	800	1050	510	R1"
SIGMA-30	7.5	109	3.17	5.28	112	187	2.69	4.49	95	159	30	40		66	1400	900	1200	685	R1-1/2"
	8.5	123	3.16	5.26	112	186	2.68	4.48	94	158	30	40		66	1400	900	1200	685	R1-1/2"
	10.5	152	3.13	5.21	110	184	2.67	4.47	94	158	30	40		66	1400	900	1200	685	R1-1/2"
	13.0	189	2.07	3.45	73	122	2.15	3.58	76	126	30	40		66	1400	900	1200	685	R1-1/2"
SIGMA-37	7.5	109	3.92	6.54	138	231	3.80	6.33	134	224	37	50		66	1400	900	1200	700	R1-1/2"
	8.5	123	3.91	6.52	138	230	3.78	6.30	133	222	37	50		66	1400	900	1200	700	R1-1/2"
	10.5	152	3.21	5.35	113	189	3.60	6.00	127	212	37	50		66	1400	900	1200	700	R1-1/2"
	13.0	189	3.09	5.16	109	182	2.66	4.43	94	156	37	50		66	1400	900	1200	700	R1-1/2"
SIGMA-45	7.5	109	4.60	7.67	163	271	4.67	7.79	165	275	45	60		69	1500	960	1200	730	R1-1/2"
	8.5	123	4.57	7.62	161	269	4.66	7.76	164	274	45	60		69	1500	960	1200	730	R1-1/2"
	10.5	152	3.88	6.46	137	228	3.74	6.24	132	220	45	60		69	1500	960	1200	730	R1-1/2"
	13.0	189	3.85	6.41	136	226	3.12	5.20	110	184	45	60		69	1500	960	1200	730	R1-1/2"
SIGMA-55	7.5	109	6.30	9.50	222	371	5.48	9.14	194	323	55	75		69	1800	1200	1400	1350	R2"
	8.5	123	6.00	9.00	212	353	5.44	9.06	192	320	55	75		69	1800	1200	1400	1350	R2"
	10.5	152	5.07	8.45	179	298	4.64	7.74	164	273	55	75		69	1800	1200	1400	1350	R2"
	13.0	189	4.44	7.40	157	261	3.78	6.30	133	222	55	75		69	1800	1200	1400	1350	R2"
SIGMA-75	7.5	109	8.53	14.21	301	502	7.03	11.72	248	414	75	100		69	1800	1200	1400	1400	R2"
	8.5	123	7.80	13.00	275	459	6.98	11.63	247	411	75	100		69	1800	1200	1400	1400	R2"
	10.5	152	6.32	10.54	223	372	6.86	11.43	242	404	75	100		69	1800	1200	1400	1400	R2"
	13.0	189	5.54	9.23	196	326	5.25	8.75	185	309	75	100		69	1800	1200	1400	1400	R2"

*)FAD in accordance with ISO 1217:2009, Annex C: Absolute intake pressure 1 bar (a), cooling and air intake temperature 20

**) Noise level as per ISO 2151 and the basic standard ISO 9614-2, operation at maximum operating pressure and maximum speed; tolerance: ±3 dB(A)

Specifications are subject to change without notice.

Technical parameters

Farafanhava Co

Model	Maximum Working Pressure		Capacity FAD*								Installed Motor Power		Driving Model & Cooling Method	Noise level**	Dimensions(mm)			Weight	Air outlet pipe diameter
			50Hz				60Hz												
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.									
	bar(g)	psig	m ³ /min		cfm		m ³ /min		cfm	kW	hp	[dB(A)]		L	W	H	kg		
SIGMA-90	7.5	109	10.36	17.27	366	610	10.21	17.01	361	601	90	120	Direct Driven Air Cooling W-Water Cooling	72	2435	1795	1715	2100	DN80
	8.5	123	10.16	16.93	359	598	10.09	16.82	356	594	90	120		72	2435	1795	1715	2100	DN80
	10.5	152	7.33	12.22	259	431	8.92	14.87	315	525	90	120		72	2435	1795	1715	2100	DN80
	13.0	189	7.27	12.11	257	428	6.76	11.27	239	398	90	120		72	2435	1795	1715	2100	DN80
SIGMA-110	7.5	109	12.03	20.05	425	708	11.46	19.10	404	674	110	150		75	2435	1795	1715	2310	DN80
	8.5	123	12.00	20.00	424	706	11.44	19.06	403	673	110	150		75	2435	1795	1715	2310	DN80
	10.5	152	9.80	16.33	346	577	10.21	17.01	361	601	110	150		75	2435	1795	1715	2310	DN80
	13.0	189	8.47	14.11	299	498	8.81	14.68	311	518	110	150		75	2435	1795	1715	2310	DN80
SIGMA-132	7.5	109	14.46	24.10	511	851	14.62	24.37	517	861	132	175		75	2435	1795	1715	2415	DN80
	8.5	123	14.40	24.00	508	847	14.54	24.23	514	856	132	175		75	2435	1795	1715	2415	DN80
	10.5	152	12.30	20.51	434	724	11.37	18.95	401	669	132	175		75	2435	1795	1715	2415	DN80
	13.0	189	9.97	16.61	352	587	10.09	16.82	356	594	132	175		75	2435	1795	1715	2415	DN80
SIGMA-160	7.5	109	17.18	28.63	607	1011	16.74	27.90	591	985	160	215		75	3110	1890	2150	4095	DN80
	8.5	123	17.09	28.49	604	1006	16.66	27.76	588	980	160	215		75	3110	1890	2150	4095	DN80
	10.5	152	13.96	23.27	493	822	14.38	23.97	508	846	160	215		75	3110	1890	2150	4095	DN80
	13.0	189	12.08	20.14	427	711	11.29	18.82	398	664	160	215		75	3110	1890	2150	4095	DN80
SIGMA-185	7.5	109	20.18	33.63	712	1187	18.27	30.45	645	1075	185	250		75	3110	1890	2150	4200	DN80
	8.5	123	19.97	33.28	705	1175	18.04	30.06	637	1061	185	250		75	3110	1890	2150	4200	DN80
	10.5	152	16.93	28.21	598	996	16.52	27.54	583	972	185	250		75	3110	1890	2150	4200	DN80
	13.0	189	13.81	23.01	487	812	14.25	23.75	503	839	185	250		75	3110	1890	2150	4200	DN80
SIGMA-200	7.5	109	22.77	37.95	804	1340	18.62	31.03	658	1096	200	270		78	3310	2090	2400	4515	DN100
	8.5	123	22.66	37.76	800	1333	18.21	30.35	643	1071	200	270		78	3310	2090	2400	4515	DN100
	10.5	152	18.05	30.08	637	1062	17.81	29.69	629	1048	200	270		78	3310	2090	2400	4515	DN100
	13.0	189	16.69	27.82	589	982	16.18	26.97	571	952	200	270		78	3310	2090	2400	4515	DN100
SIGMA-220	7.5	109	25.71	42.85	908	1513	22.33	37.22	788	1314	220	300		78	3310	2090	2400	4725	DN100
	8.5	123	25.65	42.75	906	1510	22.30	37.17	787	1312	220	300		78	3310	2090	2400	4725	DN100
	10.5	152	19.75	32.91	697	1162	19.95	33.25	704	1174	220	300		78	3310	2090	2400	4725	DN100
	13.0	189	17.84	29.73	630	1050	16.24	27.07	574	956	220	300		78	3310	2090	2400	4725	DN100
SIGMA-250	7.5	109	27.46	45.77	970	1616	25.72	42.87	908	1514	250	350		78	3310	2090	2400	4935	DN100
	8.5	123	27.40	45.67	968	1613	24.78	41.30	875	1458	250	350		78	3310	2090	2400	4935	DN100
	10.5	152	25.58	42.64	903	1506	22.22	37.04	785	1308	250	350		78	3310	2090	2400	4935	DN100
	13.0	189	18.52	30.87	654	1090	19.89	33.15	702	1170	250	350		78	3310	2090	2400	4935	DN100
SIGMA-280	7.5	109	30.92	51.54	1092	1820	28.30	47.16	999	1665	280	375		78	3730	2250	2520	6825	DN125
	8.5	123	30.77	51.28	1086	1811	27.38	45.64	967	1612	280	375		78	3730	2250	2520	6825	DN125
	10.5	152	27.38	45.64	967	1612	25.54	42.56	902	1503	280	375		78	3730	2250	2520	6825	DN125
	13.0	189	20.69	34.49	731	1218	22.17	36.95	783	1305	280	375		78	3730	2250	2520	6825	DN125
SIGMA-315	7.5	109	33.86	56.43	1196	1993	30.53	50.88	1078	1797	315	425		80	3730	2250	2520	7140	DN125
	8.5	123	33.69	56.15	1190	1983	30.50	50.83	1077	1795	315	425		80	3730	2250	2520	7140	DN125
	10.5	152	30.47	50.78	1076	1793	27.76	46.27	981	1634	315	425		80	3730	2250	2520	7140	DN125
	13.0	189	27.11	45.18	957	1595	24.19	40.32	854	1424	315	425		80	3730	2250	2520	7140	DN125
SIGMA-355	7.5	109	38.75	64.59	1369	2281	34.87	58.12	1231	2052	355	475		80	3730	2250	2520	8000	DN125
	8.5	123	36.72	61.20	1297	2161	33.92	56.54	1198	1997	355	475		80	3730	2250	2520	8000	DN125
	10.5	152	33.01	55.02	1166	1943	30.94	51.57	1093	1821	355	475		80	3730	2250	2520	8000	DN125
	13.0	189	27.13	45.22	958	1597	27.21	45.35	961	1601	355	475		80	3730	2250	2520	8000	DN125
SIGMA-400	7.5	109	44.69	74.49	1578	2630	37.03	61.72	1307	2179	400	550		80	4500	2500	2750	8800	DN125
	8.5	123	42.31	70.52	1494	2490	35.83	59.72	1265	2109	400	550		80	4500	2500	2750	8800	DN125
	10.5	152	36.50	60.83	1289	2148	33.91	56.52	1198	1996	400	550		80	4500	2500	2750	8800	DN125
	13.0	189	29.50	49.17	1042	1736	30.81	51.35	1088	1813	400	550		80	4500	2500	2750	8800	DN125

*)FAD in accordance with ISO 1217:2009, Annex C: Absolute intake pressure 1 bar (a), cooling and air intake temperature 20

**) Noise level as per ISO 2151 and the basic standard ISO 9614-2, operation at maximum operating pressure and maximum speed; tolerance: ± 3 dB(A)

Specifications are subject to change without notice.

