

SA2S SERIES | 55KW - 355KW | HEAVY INDUSTRIAL

TWO-STAGE

SCREW AIR COMPRESSOR

BUILT FOR AFRICA. ENGINEERED FOR MAXIMUM EFFICIENCY.

Supa-Air's Two-Stage Screw Compressors are purpose-built for the harsh conditions of Africa — designed with durability, efficiency, and long-term savings in mind. Covering 55kW to 355kW, offering a superior solution for heavy industrial compressed air users.

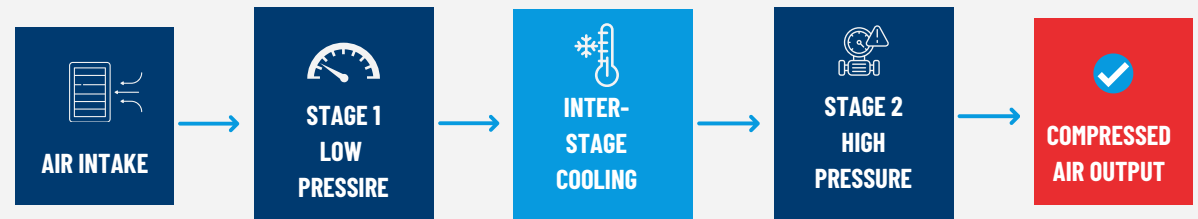


55kW - 355kW

13 MODELS AVAILABLE

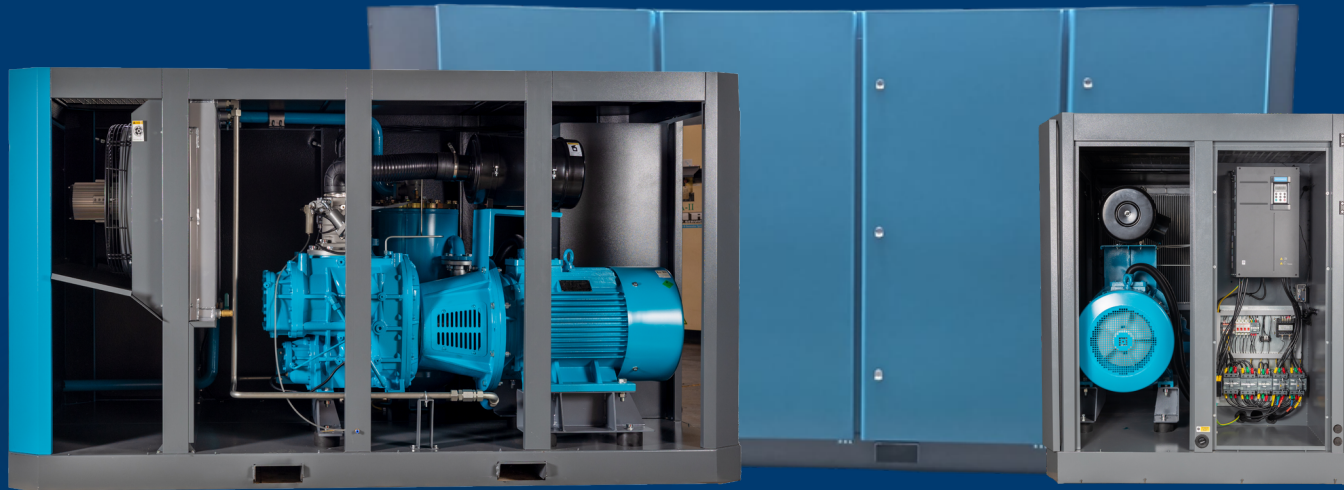
WHAT IS A TWO-STAGE SCREW COMPRESSOR

A Two-Stage Screw Compressor uses two sets of rotors instead of a single pair – a low-pressure stage followed by a high-pressure stage. Between these stages, the air is cooled (inter-stage cooling), reducing the work required in the second stage and significantly improving efficiency at higher pressures.



SINGLE-STAGE VS TWO-STAGE - WHAT IS THE DIFFERENCE?

FEATURE	SINGLE-STAGE SCREW COMPRESSOR	✦ TWO-STAGE SCREW COMPRESSOR
Compression Process	Air compressed once to final pressure.	Air compressed in two stages with inter-stage cooling. SUPERIOR
Efficiency	Lower efficiency, especially at higher pressures.	Up to 15-20% more energy efficient. SUPERIOR
Heat Generation	Higher discharge temperature.	Reduced heat build-up due to intercooling. SUPERIOR
Energy Savings	Limited savings.	Significant saving, especially with VSD. SUPERIOR
Wear & Tear	Higher load on compression elements.	Reduced stress on each stage = longer lifespan. SUPERIOR
Ideal For	Light to medium duty applications.	Heavy-duty industrial mining, manufacturing, high-demand. SUPERIOR



SUPERIOR ENERGY EFFICIENT

01

Two-stage compression with inter-stage cooling significantly reduces the power required to achieve higher pressures – up to 20% more efficient than single-stage, especially with VSD.

REDUCED OPERATING TEMPERATURES

02

Lower discharge temperatures reduce stress on compressor components, oil, and seals – extending service life and significantly reducing maintenance costs.

VSD TECHNOLOGY

03

Integrated VSD for unmatched efficiency:

- Soft start - no power spikes or peak demand penalties.
- Speed adjusts automatically to air demand.
- Optimised across varying production shifts.
- Reduced electrical and mechanical stress.

OPTIMAL AFRICAN PERFORMANCE

04

Engineered specifically for Africa's challenging environments – high ambient temperatures, dusty conditions, and continuous-duty industrial applications.

HEAVY-DUTY BUILD QUALITY

05

Oversized coolers, high-efficiency filters, and heavy-duty components – built for reliability in mining, manufacturing, cement, and petrochemical applications.

TWO-STAGE SCREW COMPRESSOR SPECIFICATIONS

MODEL	HP	KW	0.7 MPA		0.8 MPA		1.0 MPA		DIMENSIONS (MM) L x W x H	WEIGHT (KG) KG	DB(A) DB(A)
			M ³ /MIN	CFM	M ³ /MIN	CFM	M ³ /MIN	CFM			
SA2S-55VSD	75HP	55KW	13.33	471.02	12.05	425.8	9.95	351.59	2900×1470×1625	1750	76
SA2S-75VSD	100HP	75KW	15.68	554.06	15.19	536.75	12.54	443.11	2900×1470×1625	1970	76
SA2S-90VSD	120HP	90KW	20.29	716.96	19.11	675.27	15.83	559.36	3400×1757×1860	2670	76
SA2S-110VSD	150HP	110KW	24.30	858.66	23.52	831.1	19.8	699.65	3400×1757×1860	2950	76
SA2S-132VSD	175HP	132KW	28.42	1004.24	27.44	969.61	22.74	803.53	3750×1900×1980	4570	78
SA2S-160VSD	200HP	160KW	33.32	1177.53	31.85	1125.44	27.44	969.61	3750×1900×1980	4750	78
SA2S-185VSD	250HP	185KW	38.22	1350.53	37.24	1315.9	31.36	1108.13	3900×2100×1980	5800	78
SA2S-200VSD	280HP	200KW	42.34	1496.11	41.16	1454.42	37.34	1319.43	3900×2100×1980	6100	78
SA2S-220VSD	300HP	220KW	47.54	1679.86	45.28	1600	40.38	1426.86	4260×2182×2170	6200	82
SA2S-250VSD	350HP	250KW	51.45	1818.02	49.98	1766.08	44.88	1585.87	4260×2182×2170	6500	82
SA2S-280VSD	375HP	280KW	57.8	2042.4	55.6	1964.66	49.5	1749.12	4260×2182×2170	6800	82
SA2S-315VSD	400HP	315KW	63.1	2229.68	61.3	2166.08	55.2	1950.53	4600×2240×2260	8600	82
SA2S-355VSD	450HP	355KW	73	2579.51	72	2544.17	61.1	2159.01	4600×2240×2260	9200	85

WHY CHOOSE SUPA-AIR TWO-STAGE?

- Lower Energy Costs** – up to 20% more efficient than single-stage at equivalent output
- Reliable in Extreme Conditions** – built for Africa's heat, dust, and continuous-duty demands
- Reduced Maintenance & Downtime** – lower operating temperatures extend all component life
- Faster Return on Investment** – energy savings + extended lifespan accelerate payback
- Proudly Designed for Africa** – OEM built, OEM backed, OEM warranted

INDUSTRIES SERVED



MINING OPERATIONS



FOOD & BEVERAGE



ENERGY & PETROCHEMICAL



MANUFACTURING & PRODUCTION PLANTS



AUTOMOTIVE & HEAVY ENGINEERING



CEMENT & AGGREGATE PROCESSING

**FIXED SPEED &
VSD OPTIONS**

All SA2S models available in both fixed-speed and Variable Speed Drive configurations.

AIR ENDS / ROTOR



01

- Double Screw Technology - oversized rotors for better airflow at lower RPM.
- New Generation 5:6 Lobe Profile Rotors for high efficiency.
- German Air-End Technology
- SKF Bearings for balance and smooth operation.
- Cooler running, extended lifespan.

OIL / AIR COOLERS



02

- Oversized cooler design for improved heat control.
- Lower discharge temperature - higher air quality.
- Efficient cooling reduces fan use.

COMPUTER CONTROLLER (PLC)



03

- Adjusts output pressure 4-13 bar (model dependant)
- Built-in protection: phase faults, overheating, low oil, overload.
- Real-time display of hours, current, load status.

SUPA-46 COMPRESSOR OIL



04

- Reduces friction & Wear
- Meets DIN-50506 VDL Standard

OIL FILTER



05

- Model-specific lubrication - longer life
- Quality OEM filters
- Built to German specifications.

MOTORS



06

- SKF Industrial Bearings
- Reliable 380V & 525V with IP54 enclosure options.
- Motor kW/HP matched to each Air-End.

AIR INLET VALVE



07

- New reliable design - fewer moving parts
- Smooth suction valve - reduces bearing shock.
- Modulation control - units above 55kW

OIL / AIR SEPARATOR



08

- Large separator vessel with baffle plates.
- Efficient pre-separation - residual oil to ~3ppm.
- SANS 347 compliant - ASME Certified.

RECEIVER / SEPARATOR VESSEL



09

- Receiver/Separator Vessel - SANS 347 compliant.

AIR FILTERS



10

2

- High-Efficiency Inlet Filters
- Positioned at Highest Points
- Advanced Filtration Technology - blocks contaminants.

MINIMUM PRESSURE VALVES



11

- Quality Minimum Pressure Valve - keeps system pressure stable.
- Minimal pressure loss for consistent performance.

SWITCH GEAR & ELECTRICAL COMPONENTS



12

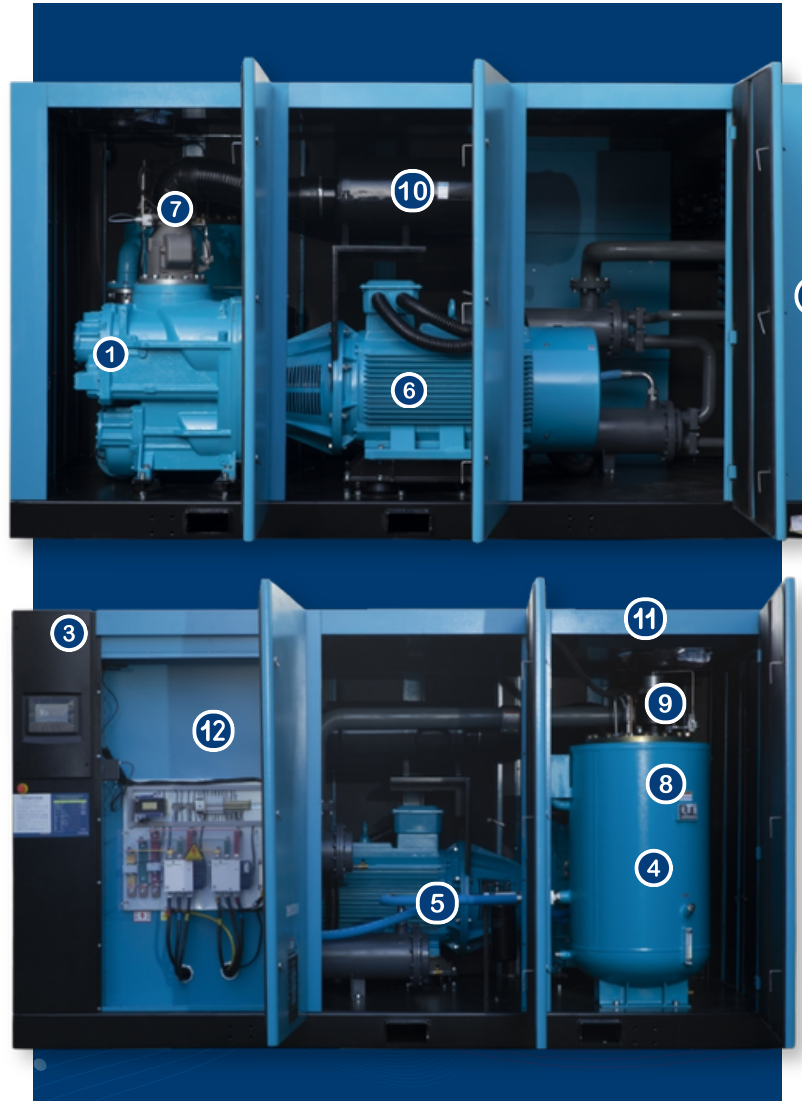
- Top international brand (ABB and Schneider) used across Models.
- High Quality VSD's and Star/Delta starting systems.

VSD DRIVE



13

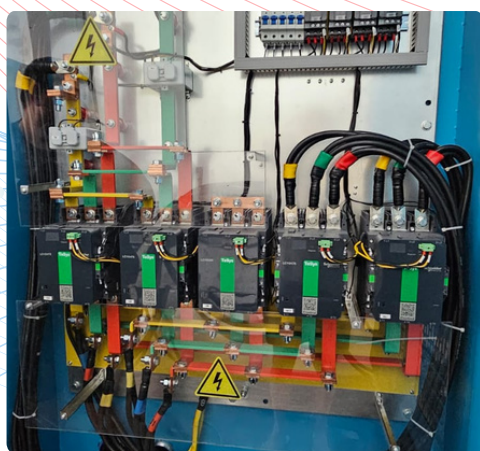
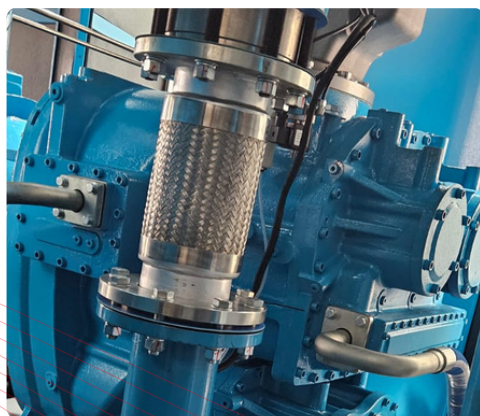
- High quality VSD Drives
- South African backup on all drives



OEM-OWNED | OEM-PROUD

OUR PROMISE AS THE OEM.

Every Supa-Air compressor, from 7.5kW to 355kW, is designed, built, and backed by us.



CONTACT US.

We stand behind our products with conviction and provide unmatched support to ensure your success.

DIRECT CONTACTS

PIERRE
083 229 5446

JACO
082 386 4324

KYLE
071 602 0146

ZWELI
072 446 7225

www.supaair.co.za

GAUTENG | CAPE TOWN | DURBAN

