

GROUPS
Airc AIR COMPRESSOR
THE BEST INDUSTRIAL EQUIPMENT





The advanced production technology is the powerful guarantee of quality.

To master more advanced technology means covering more market at present while the technology changes with each passing day.

Spread Brand; Enhanced value,

Innovated Technology; Rank first.



The biggest energy saving is derived from the highest efficiency to reassure careful, safety achievements.

High Reliability

Perfect 6-steps quality test system

- Three dimensional design
UNICAL'S products are designed upon actual working condition
- Parts of the accelerated life test
All the parts should take accelerated life test.
- The performance test
Complete test according to ISO and GB standard
- Simulation test
Simulation conditions harsher than the actual condition to test the durability of the machine.
- The field test
After all test finished, we make field test in different environment of our different customers.
- The factory test
Make performance test to every machine in different working conditions according to high standard requirement to assure every machine to be safe and reliable..

Low Noise

Special design of the airend housing to maximize reduce noise
Design and manufacture the muffler and low rotation speed centrifugal fan, in reference to simulate the flow of cooling air, thus successfully reduce the noise produced by the air friction.
High density muffler, can keep noise to a minimum.
Specially designed quick ventilation valve eliminates the discharge noise



Energy Saving

Newly developed airend by Unical with big screw rotor, to achieve the best space combination between rotors processed by high precision grinding machine

- The highest level of displacement in the world
- Motor and the speed of the rotor always synchronized 1:1
- With big rotor, low speed, designed according to the highest efficiency point of the rotors direct driven, gearless design which can reduce consumption loss
- High efficient centrifugal fan
- Energy intake valve system

Humanization Layout

Humanized installation structure and easy maintenance greatly save maintenance time

- with movable hinged door
- Rotary cover of oil barrel, minimal use of screw and nut
- Oil barrel with O ring, and other small parts for replacement, cooler is easy to remove and clean

This assures customers' safe use and easy maintenance, and its convenient to clean the machine.



High-Efficiency Motor

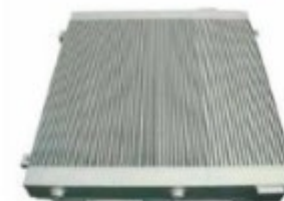
All the motors used on UNICAL screw compressors are produced by professional motor factory according to high level standard, especially to the special treatment to the part on variable frequency motors. Its strong power take-off, low working temperature and low energy loss makes the motor has enough temperature allowance and high working stationarity. To ensure the compressor's trouble-free operation for long time, reducing the risk of burnt by motor jumping.

Adopting top best procession equipments and all function tests. The beat of testing axle is controlled 0.02mm to ensure the vibration of the motor and bearing's life. We using imported SKF bearings. Its high IP class can prevent efficiently the dust and water enter into the motor, thus largely extend the life of the product.



High Efficiency Energy-saved Screw Airend

By using top technology newly designed rotors. The improved sealing line between rotors get a maximized volume efficiency, keeping improve rotors molded line and inner construction, precision production. The rotors are made by special steel for strength. It supplies the top-level discharged volume and durability in the world. Unique bearing spread pattern: by using ball bearings at the outlet, it gives a safe factor like a trap to the load from radial and axial direction, efficiently control the rotors play, extend largely the air end's service life. The advanced lip style shaft seal and shaft sleeve matching with the lip of the shaft seal are all made by super precision grind process technology to help in prevent the leakage inside and outside. It can work permanently except artificially damaged.



Cooling System

The cooling system of copying the air movement ensures the temperature inside the machine, keeps the discharge temperature being steady.

We designed a high temperature lab through research. The new products can be tested under harsher environment to ensure its normal work. The strong adaptation cooling fan and motor make the machine can work under 50 of environment temperature.

The coolers be used on compressor over 110KW are designed as an combination of three parts. So it can get lighter weight, easy maintain, reduced maintenance charges.

The good material and aluminum made fin ensure the cooler's pressurization and good heat dissipation.



Centrifugal Fan

Six pole motor, low noise, high energy saving, big blast capacity, good cooling result, not easily block

Energy-saved Inlet Valve System

High efficient control to air volume
Combination of solenoid valve, air release valve and valve body; combine the functions of unloading, in-taking and air release, and be adjustable of air volume in unloading, in-taking and releasing. There also has specially designed quick ventilation valve eliminating the unloading noise.

Air Filter

The compressor suction the environment air largely, the air filter can prevent the dust in the air into the machine, taking pivotal role to the good working of the oil separator, lubrication oil, air end, radiator and solenoid valve. But a lot of dust can not be seen by eyes, bad quality material filters can not prevent the small particle dust enter into the machine system, after a period of time, cracking lubrication oil causes bad working of machine, suffering a lot of loss. Unical adopts the best air filter materials, using two stages of treatment which are dust screen and precise filters, to ensure the in-taking air being clean.



Energy-saved Flexible Direct-Driven Transmission at the rate of 1:1

The elastic coupling and centre housing connect the motor and air end together. The speed of the motor and rotors keep the same, no transmission loss. The connection between motor and air end is flexible. The reliable connection ensures that the shaft of motor and shaft of air end keeps aligning permanently while in transportation, installation and operation, reducing the start torque, achieving the lowest energy consumption and service life prolonged.



Super Lubrication Oil

Comparing normal lubrication oil, super lubrication oil has highlight advantages.

Excellent separation character makes the oil content of the compressed air to the bottom. The heat conductivity makes the temperature of the machine to the lowest, improved the efficiency and reliability of the compressor. The super coolant doesn't contain carbon and hydrogen. It can eliminate the residue in the course of oxygenolysis, efficiently extend the maintenance interval to the machine.



Easily-Maintained Belt- Driven Transmission

The small power compressors use belt-driven transmission. It can take the effect in easy pressure adjustment, overloading protection, easy replacement of shaft seals of motor and air end.



3-Stage Oil Separator System

The first stage:
Whirlwind inertial separation in the oil barrel

The second stage:
Airflow impact separation at the bottom of the oil separator

The third stage:
The compressed air will be separated through super precise oil separator, the clean air being out from the oil barrel, oil content smaller than 2ppm.



NEW PRECEPT OF ENERGY SAVING V SERIES OF INVERTER COMPRESSOR

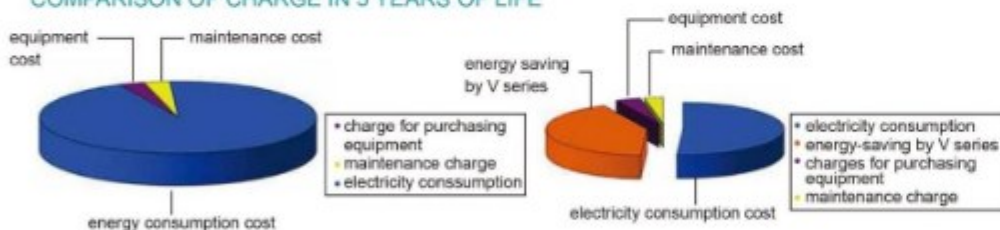
Speed changing driven: reduce energy consumption

Energy conservation is the biggest advantage of the inverter compressor--especially when the fluctuation of air consumption by user is bigger, this advantage will be more obvious.

The energy consumption cost of the compressor covers more than 60% of its periodic working cost. The cost of producing compressed air covers about more than 40% of the total electric charge of the factory. The air demand in most of production environment will fluctuate widely in different time of every day, different day of every week or different month of every year. The compressed air supplied by inverter compressor can meet accurately the demand of user. When the user's air consumption reduce, the air displacement reduce, thus the energy consumption reduces accordingly.

The key characteristic of the inverter compressor is to reduce the energy consumption to the minimum by reducing the energy consumption when unloading.

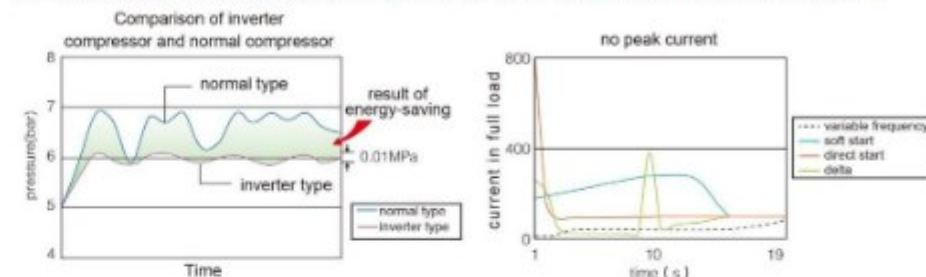
COMPARISON OF CHARGE IN 5 YEARS OF LIFE



WORKING PRICIPLE OF INVERTER COMPRESSOR

The unit of inverter compressor controls the pressure in the users system, its control system is composed by frequency changer, pressure sensor and variable frequency motor. The pressure value can be set by the operation panel directly. The system pressure can be tested by the pressure sensor, then change to be 4-20mA and feedback to the controller. The controller will calculate by PID, and compare with the set working pressure value, thus control the output frequency of the frequency changer, change the rotating speed of the main motor, to ensure the amount of displaced air meeting with the demand of the factory, to achieve the goal of energy-saving and supply compressed air in constant pressure.

BY CONSTANT PRESSURE CONTROL TO SUPPLY REQUIRED COMPRESSED AIR



It can take accurate control of stable pressure below the range of 0.01Mpa of pressure change, to supply the necessary and appropriate amount of air upon the pressure of the machine. Moreover, the precision of the set value can be 0.01Mpa, this achieves the goal of energy saving in maximum.

Soft start, no peak current

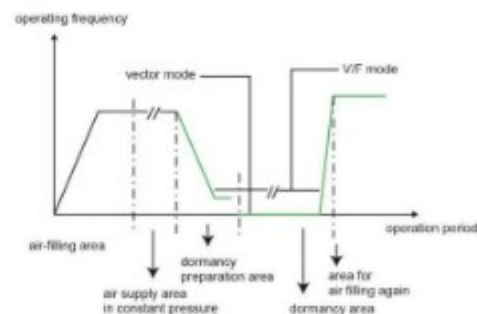
The soft start of frequency changing eliminates the peak current when start, avoid the impact of power grid. Through adjustment of rotating speed in every stage, avoid the impact of the electric current, improve its flexibility.

HIGH PERFORMING VECTOR CONTROL

Real vector control inverter: Start in low frequency, big moment of force, small working electric current.

The inverter has the function of dormancy. When the air consumption is small, it sleeps, and wakes up automatically. It has no process of long time operation under lower limit of frequency, to realize energy saving.

By adopting vector control technology, the machine can get an appropriate torque to drive the machine working steadily within a large range of rotating speed in minimum temperature rise of motor. The vector control technology can separate the two vectors which are excitation and torque contained by the stator current, control them separately. Then compound them and change to be control signal of inverter parameter to achieve the control to electromagnetic torque. This can ensure the motor's normal work under lower temperature even in lower speed.



Switch over between power frequency and frequency conversion

Our normal inverter compressor equipped with power frequency starter for standby application, in case there has trouble in the inverter.

PLC INTELLIGENT CONTROL SYSTEM

Linkage control: It can set one of the compressors as main one, others as slaves, to realize linkage control of several compressors, ensuring the economic and steady supply of compressed air.

Remote control: By connecting the computer or DCS with the communication interface on UNICAL'S intelligent controller, control the unit of compressors remotely.

Extended function: Touch screen controller can be selected. It shows dynamically the operation condition of the compressor, operation being easier. GSM modem can be selected, when there has trouble in the compressor or pre-alarm, it can send message to appointed mobile. This function not only adds the reliability of condition monitoring, but also reduces the manager's duty load.



Air-solution: Computer display monitor

- Use LAN cable to connect and combine the control equipment and pc from administrative department. Easy to install.
- To achieve the best control of the compressor/air disposal equipment via concentrator.
- To monitor unusual happenings, production line pressure and etc.
- Intelligent control compressor, manage, count and report making function

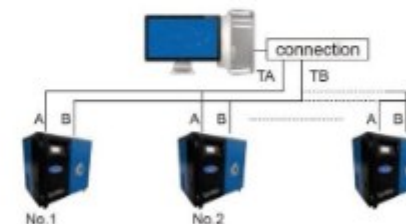
Air-solution: Touch screen remote control equipment

- Use LAN cable to connect with administrative department. Easy to install.
- To monitor unusual happenings, production line pressure and etc.
- Touch screen display presents combined control equipment function.

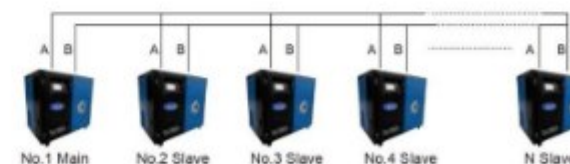
Comp-keeper: SMS

- Send to administrator the sms about the maintenance of compressor and malfunction
- Specify 18 cell phone number at the most
- It can enter directly different kinds of words according to the occurrence.

COMPUTER CONTROL



LINKAGE CONTROL



SLM SERIES OF PERMANENT MAGNET INVERTER COMPRESSOR



Save 42%
of electric charge for you

Integrated shaft type construction motor steady operation

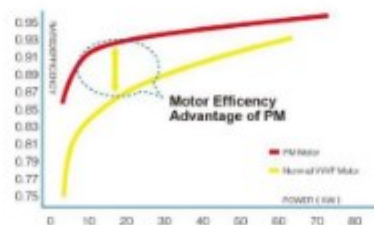
PM motor is connected with airend directly as a whole.
No energy loss caused by belt and gears. More compact construction.
No bearings, no trouble in bearings, 100% of transmission efficiency.
With high efficiency NbFeB permanent magnets, no loss of magnet, service life be longer.
The stator coil uses corona resistant enameled wire special for converter. Excellent insulation function. Service life more longer.



High efficiency permanent magnet motor,
direct connection, without bearing.

High efficiency PM motor frequency control

The frequency control can be achieved by adjusting the rotate speed according to the amount of required air. It can save energy 6-7% in comparing with the common frequency compressor. Having obvious advantage in energy-saving. In comparing with normal power frequency compressor, the compressor with PM motor can save energy 42%.



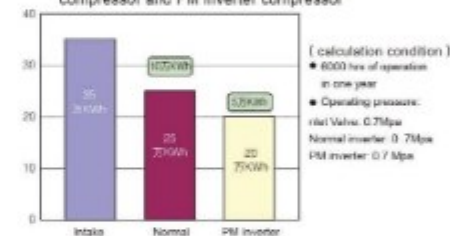
How much it can save?

The energy consumption for producing compressed air may exceed 40% of the factory's total energy consumption. VS compressor can adjust the displaced air amount upon actual air consumption, thus reduced 25-44% of extra energy consumption.

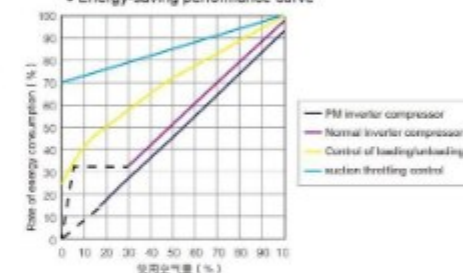
The inverter compressor can reduce energy consumption by following:

Eliminate the process from full load to unload.
PM motor can save 6-7% of energy comparing with other normal inverter.
Built-in shaft direct connection whole construction.
No unloading power consumption.
Maintain the pressure difference in pipe system within 0.01Mpa.
Reduce average working load.
Reduce leakage in system.
The character of soft start adds the electric current balance of the motor, avoid the electric current impact.
Supply 4-13bar for choice, reduce energy consumption in most extend.

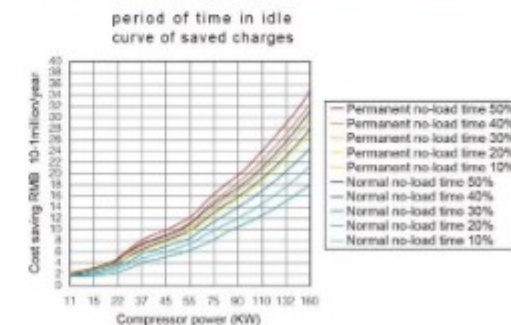
Electricity charges every year Comparison of 55KW normal inverter compressor and PM inverter compressor



Energy-saving performance curve



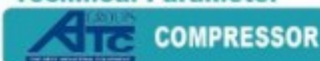
Yearly Saved Charges of PM and Normal Inverter Compressor



working time: 6000hrs per year, price for electricity: RMB1.0 per degree. The above data is speculated in theory.



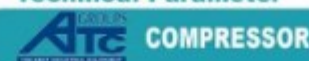
Technical Parameter



SLD series Direct-driven Screw Air Compressor

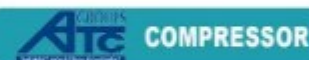
Model	Motor Power (Kw)	Power (Hp)	Air delivery (m ³ /min)	Working pressure (bar)	Lubricant Oil (L)	Outlet Pipe Dia	L*W*H (mm)	N.W (Kg)
SLD-22	22	30	3.5	7	15	G1"	1300 x 850 x 1220	550
			3.3	8				
			3	10				
			2.6	13				
SLD-30	30	40	5.2	7	20	G1-1/2"	1550 x 950 x 1380	700
			5.0	8				
			4.5	10				
			3.8	13				
SLD-37	37	50	6.5	7	20	G1-1/2"	1550 x 950 x 1380	800
			6.2	8				
			5.7	10				
			4.8	13				
SLD-45	45	60	8.0	7	20	G1-1/2"	1550 x 950 x 1380	980
			7.5	8				
			6.9	10				
			6.0	13				
SLD-55	55	75	10.3	7	30	G2"	1700 x 1100 x 1520	1600
			9.8	8				
			9.7	10				
			7.5	13				
SLD-75	75	100	13.5	7	35	G2"	2100 x 1200 x 1650	1900
			12.5	8				
			11.2	10				
			10.0	13				
SLD-90	90	125	16.3	7	40	DN50	2200 x 1250 x 1650	2100
			15.9	8				
			14.0	10				
			12.2	13				
SLD-110	110	150	21.0	7	50	DN65	2500 x 1500 x 1950	3400
			20.0	8				
			17.0	10				
			14.8	13				
SLD-132	132	180	23.5	7	50	DN65	2500 x 1500 x 1950	3400
			22.5	8				
			21.0	10				
			18.0	13				
SLD-160	160	220	28.0	7	60	DN80	2600 x 1500 x 1950	4000
			26.5	8				
			24.5	10				
			20.3	13				
SLD-185	185	250	32.0	7	60	DN80	2800 x 1560 x 1920	4000
			30.0	8				
			27.8	10				
			24.5	13				
SLD-200	200	280	34.3	7	60	DN80	2800 x 1700 x 1950	4200
			32.9	8				
			30.2	10				
			27.2	13				
SLD-220	220	300	36.0	7	100	DN100	3360 x 2000 x 2000	4500
			34.2	8				
			30.2	10				
			27.5	13				
SLD-250	250	340	43.5	7	100	DN100	3360 x 2000 x 2000	4900
			41.8	8				
			38.0	10				
			34.5	13				
SLD-315	315	400	57.6	7	220	DN125	4200 x 2250 x 2275	5700
			54.8	8				
			50	10				
			43.4	13				
SLD-355	355	480	64.5	7	220	DN125	4200 x 2250 x 2275	6200
			62.2	8				
			56.0	10				
			48.6	13				

Technical Parameter



SLB series Belt-driven Screw Air Compressor

Model	Motor Power (Kw)	Power (Hp)	Air delivery (m ³ /min)	Working pressure (bar)	Lubricant Oil (L)	Outlet Pipe Dia	L*W*H (mm)	N.W (Kg)
SLB-7.5	7.5	10	12	7	8	G3/4"	800*695*830	280
SLB-11	11	15	17	7	8	G3/4"	800*695*830	300
SLB-15	15	20	23	7	10	G3/4"	1150*800*1100	390
SLB-18.5	18.5	25	27	7	10	G3/4"	1150*800*1100	450
SLB-22	22	30	33	7	15	G1"	1115*860*1250	660
SLB-30	30	40	43	7	15	G1"	1115*860*1250	710
SLB-37	37	50	49	7	20	G1-1/2"	1200*900*1300	850
SLB-45	45	60	57	7	20	G1-1/2"	1200*900*1300	950
SLB-55	55	75	67	7	30	G2"	1650*1200*1620	1600



SLW series Water Cool Screw Compressor

Model	Motor Power (Kw)	Power (Hp)	Air delivery (m ³ /min)	Working pressure (bar)	Lubricant Oil (L)	Cooling Water (L)	Outlet Pipe Dia	L*W*H (mm)	N.W (Kg)
SLW-55	55	75	30.2	7	30	4.8	G2"	2100 x 1200 x 1530	1900
SLW-75	75	100	42.2	7	35	6.6	G2"	2100 x 1200 x 1530	2000
SLW-90	90	125	49.2	7	40	7.8	DN50	2200 x 1250 x 1660	2050
SLW-110	110	150	57.2	7	50	10.2	DN65	2500 x 1500 x 1960	3400
SLW-132	132	180	67.2	7	50	11	DN65	2500 x 1500 x 1960	3400
SLW-160	160	220	77.2	7	60	12	DN80	2800 x 1700 x 1750	4000
SLW-185	185	250	87.2	7	60	13.2	DN80	2800 x 1700 x 1750	4000
SLW-200	200	280	97.2	7	60	15.6	DN80	2800 x 1700 x 1750	4000
SLW-220	220	300	107.2	7	100	18	DN100	3200 x 1980 x 1960	4900
SLW-250	250	340	117.2	7	100	20.4	DN101	3200 x 1980 x 1960	4900
SLW-315	315	425	147.2	7	220	26	DN125	4200 x 2250 x 1960	6000
SLW-355	355	480	167.2	7	220	30	DN126	4200 x 2250 x 1960	6200
SLW-560	560	750	267.2	7	440	36	DN200	3416 x 2288 x 2172	9200

Technical Parameter

SLB-V series Frequency Screw Compressor

Model	Motor Power (Kw)	Power (Hp)	Air delivery (m ³ /min)	Working pressure (bar)	Lubricant Oil (L)	Outlet Pipe Dia	L*W*H (mm)	N.W (Kg)
SLB-11V	11	15	0.4-2	7	8	G3/4"	800 × 695 × 830	210
			0.32-1.6	8				
			0.28-1.42	10				
SLB-15V	15	20	0.5-2.5	7	10	G3/4"	1150 × 800 × 1100	360
			0.46-2.3	8				
			0.4-2.0	10				
			0.62-3.1	7				
SLB-18.5V	18.5	25	0.58-2.9	8	10	G3/4"	1150 × 800 × 1100	400
			0.52-2.6	10				
			0.7-3.5	7				
SLB-22V	22	30	0.66-3.2	8	15	G1"	1130 × 850 × 1220	550
			0.6-3.0	10				
			1.04-5.2	7				
SLB-30V	30	40	1.0-5.0	8	20	G1-1/2"	1550 × 950 × 1380	800
			0.9-4.5	10				
			1.3-6.5	7				
SLB-37V	37	50	1.24-6.2	8	20	G1-1/2"	1550 × 950 × 1380	800
			1.14-5.7	10				
			1.6-8.0	7				
SLB-45V	45	60	1.5-7.5	8	20	G1-1/2"	1550 × 950 × 1380	960
			1.38-6.9	10				
			2.06-10.3	7				
SLB-55V	55	75	1.92-9.6	8	30	G2"	1700 × 1100 × 1520	1600
			1.74-8.7	10				
			2.7-13.5	7				
SLB-75V	75	100	2.5-12.5	8	35	G2"	2100 × 1200 × 1620	1900
			2.24-11.2	10				
			3.26-16.3	7				
SLB-90V	90	125	3.16-15.9	8	40	DN50	2200 × 1250 × 1650	1900
			2.8-14	10				
			4.2-21	7				
SLB-110V	110	150	4.0-20	8	60	DN65	2500 × 1500 × 1950	2800
			3.4-17	10				
			4.7-23.5	7				
SLB-132V	132	180	4.5-22.5	8	60	DN65	2500 × 1500 × 1950	2800
			4.2-21	10				
			5.6-28	7				
SLB-160V	160	220	5.3-26.5	8	100	DN80	2600 × 1500 × 1650	3500
			4.9-24.5	10				
			6.4-32	7				
SLB-185V	185	250	6.0-30	8	100	DN80	2800 × 1560 × 1920	4000
			5.6-27.8	10				
			8-40	7				
SLB-250V	250	340	7.8-39	8	220	DN100	3360 × 2000 × 2000	5000
			7.6-38	10				

Technical Parameter

SLM series PM Inverter Screw Compressor

Model	Motor Power (Kw)	Power (Hp)	Air delivery (m ³ /min)	Working pressure (bar)	Lubricant Oil (L)	Outlet Pipe Dia	L*W*H (mm)	N.W (Kg)
SLM-22	22	30	0.56-3.71	8	15	G1"	1100 × 850 × 1220	500
			0.5-3.42	10				
			0.45-2.94	12.5				
SLM-37	37	50	1.03-6.66	8	20	G1-1/2"	1150 × 1000 × 1410	750
			0.91-5.96	10				
			0.80-5.27	12.5				
SLM-45	45	60	1.32-8.79	8	30	G2"	1700 × 1100 × 1520	1200
			1.16-7.73	10				
			0.98-6.54	12.5				
SLM-55	55	75	1.63-10.74	8	30	G2"	1700 × 1100 × 1520	1200
			1.04-9.32	10				
			1.20-7.94	12.5				
SLM-75	75	100	2.07-13.8	8	35	G2"	1878 × 1200 × 1620	1500
			1.81-12.0	10				
			1.56-10.4	12.5				
SLM-90	90	125	2.45-16.33	8	40	DN50	2200 × 1250 × 1650	1900
			2.05-13.65	10				
			1.82-12.12	12.5				
SLM-110	110	150	3.03-20.2	8	60	DN65	2500 × 1500 × 1950	2200
			2.69-17.9	10				
			2.37-15.8	12.5				
SLM-132	132	180	3.62-24.1	8	60	DN65	2500 × 1500 × 1950	2200
			3.21-21.3	10				
			2.94-19.6	12.5				



Left view



Front view



Rear view



Right view

PORTABLE DIESEL-DRIVEN COMPRESSOR

Range of displacement:

Choice of different power for different demand

Compact structure, small cover.

Airend gurantee: 3years, 6000hours

Easy to maintain.

Applicable for

Automobile making, mining, factory maintenance, electronics, pipe service, power station, railway, paper mill and so on.



Technical Parameter



COMPRESSOR

SLDY series Portable Motor Driven Compressor

Model	Motor Power (Kw)	Power (Hp)	Air delivery (m ³ /min)	Working pressure (bar)	Lubricant Oil (L)	Outlet Pipe Dia	L*W*H (mm)	N.W (Kg)
SLDY-55	55	75	10	8	30	1-1" 1-1 1/2"	3320x1600x1800	1800
			8.5	10				
			7	13				
SLDY-75	75	100	13	8	35	1-1" 1-1 1/2"	2450x1700x2170	2300
			11	10				
			10	13				
SLDY-90	90	125	16	8	40	1-1" 1-1 1/2"	2450x1700x2170	2500
			14.5	10				
			12	13				
SLDY-110	110	150	20	8	60	1-1" 1-1 1/2"	3550x1740x2000	3000
			17	10				
			14	13				
SLDY-132	132	180	23	8	60	1-1" 1-1 1/2"	3550x1740x2000	3500
			21	10				
			17	13				
SLDY-160	160	220	27	8	100	1-1" 1-1 1/2"	3650x1724x2484	4200
			25	10				
			20	13				
SLDY-185	185	250	30	8	100	1-1" 1-1 1/2"	3650x1724x2484	4500
			27.5	10				
			24	13				



COMPRESSOR

SLCY series Portable Diesel-Driven Screw Compressor

Model	Motor Power (Kw)	Power (Hp)	Air delivery (m ³ /min)	Working pressure (bar)	Diesel Brand	Intake Valve Size	L*W*H (mm)	N.W (Kg)
SLDY-58	58	80	7	7	Yucal	1-1"	3500x1600x2000	1800
SLDY-90	90	120	10	8		1-1"	4000x2080x2300	2300
			8	10		1-1 1/2"		
SLDY-110	110	150	12	8	Yucal	1-1"	4000x2080x2300	2480
			10	10		1-1 1/2"		
SLDY-132	132	180	13	8-13		1-1"	4300x2100x2200	2800
			17	8		1-1 1/2"		
SLDY-176	176	240	20	8	Cummins	1-1"	4500x1900x2500	4500
			17	8-13		1-2"		
SLDY-190	190	260	18	17		1-2" 1-1"	4500x2000x2586	5800
SLDY-238	238	325	22	14		1-2" 1-1"	4500x2000x2586	5800
SLDY-250	250	340	21	20		1-2" 1-1 1/2"	4800x2000x2500	5800
SLDY-264	264	360	25	22		1-2" 1-1"	4500x2000x2586	5800
SLDY-298	298	400	26	20		1-2" 1-1 1/2"	4800x2000x2500	6200

100% OILFREE SCREW COMPRESSOR

Working principle of EcoTec converter

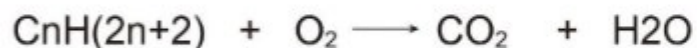
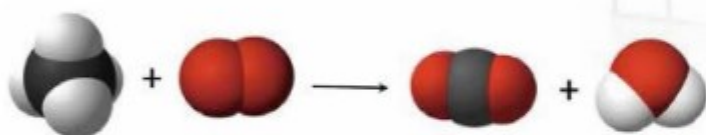
The latest patent product of Rotorcomp, 100% of German original technology power. By physical – chemical reaction, EcoTec can converse the mixture of oil and trace gas in atmosphere by adopting a special catalysis.

All hydrocarbon and carbon monoxide will be eliminated in EcoTec converter. The final compressed air doesn't contain oil absolutely, its oil and hydrocarbon content is $\leq 0.01\text{mg/m}^3$, which can be used without limitation in any line which needs oil free compressed air.

This kind of treatment process is not only benefit for environment protection, but also its long service life of more than 15000hours make it being very economic. Since all waste being eliminated, there has a big potential possibility to reduce cost substantially.



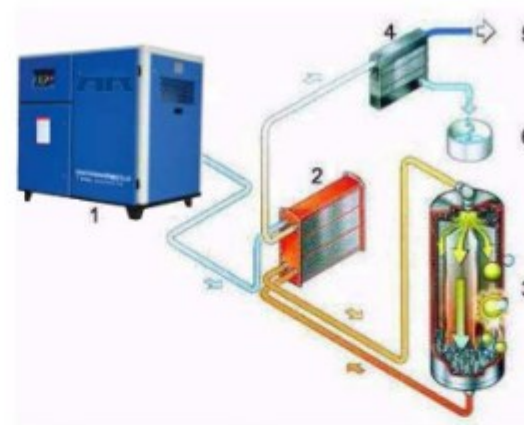
CHEMICAL REACTION IN ECOTEC CONVERTER



ADVANTAGES OF ECOTEC CONVERTER

Combination of high efficiency screw compressor and EcoTec oil free converter can achieves the following advantages:

- ◇ Oil free compressed air, oil/hydrocarbon content $\leq 0.01\text{mg/m}^3$.
- ◇ Reliable operation, EcoTec oil free converter will not be inflected by: oil content of intake air, working temperature, environment air humidity.
- ◇ Oil free condensate
- ◇ Low energy consumption
- ◇ 15000 hours of running time-----won't change forever
- ◇ High efficiency environmental protection
- ◇ High economic benefit, low cost
- ◇ No maintenance problem
- ◇ Clear away all waste, reduce relevant charges



- 1.compressor
- 2.air/ air heat exchanger
- 3.EcoTec Eco Tec oil free converter
- 4.dryer
- 5.Oil free compressed air
- 6.Clean water

Applicable range

Breathing air	metallurgy
PET machine	mechanical engineering
Food and drink industry	plastics
Pharmacy industry	chemical industry
Inflation line	industrial gas
Milk industry	tobacco industry
Semiconductor	Textile

Technical Data

Model	Air Delivery (7bar)	Max Pressure	Intake dia	Weight	Long	Wide	Height	Install Power	Power consump	Voltage
	Nm ³ /min	bar		kg	mm	mm	mm	kw	kwh/m ³	V
ETC-SV04-7	0.4	16	Ermeto 15mm	37	280	170	1500	1.5	0.01	230
ETC-SV1-7	1	16	Ermeto 18mm	100	750	455	1389	1.2	0.01	230
ETC-SV2-7	2	16	Ermeto 28mm	150	750	455	1585	2.5	0.01	230
ETC-SV5-7	5	16	Ermeto 35mm	345	930	610	1742	5	0.01	400
ETC-SV7-7	7	16	Ermeto 42mm	570	1110	610	1742	5	0.01	400
ETC-SV10-7	10	16	Ermeto 42mm	670	1514	707	1972	10	0.007	400
ETC-SV15-7	15	16	DN 50	1180	1514	707	1972	10	0.007	400
ETC-SV20-7	20	16	DN 65	This parameter has not yet been announced, according to the actual requirements of the final confirmation.				21	0.007	400
ETC-SV30-7	30	16	DN 65					21	0.007	400
ETC-SV40-7	40	16	DN 80					28	0.005	400
ETC-SV50-7	50	16	DN 100					28	0.005	400

Compressed air station





Field type: variable function, high performance

SLD series of machine has the function of small occupation, low noise, with built-in air and condensation water treatment equipment, being escort of customer's production. The integration design makes it can be put in production field, reduce the charges for external pipes. The added efficiency can help customers in energy saving.

The lowest installation cost

SLD series of compressor can work at the place where need compressed air, special compressor room being left out. SLD can start up at any time---- reduce the cost of stop and installation.

Built-in filter reduces the charges for external pipe. Traditional compressors need external filters, causing high noise, the machine should be put far away from the production field. Thus external pipes should be added, installation cost coming higher accordingly.



The lowest energy consumption and maintenance cost

Filed type, fewer pipes, reduce pressure drop of whole system. The filtered clean air protects the pipes, avoid the corrosion, thus reduced energy consumption and maintenance cost. Under the monitor of intelligent Air- solution. SLD machines reduced the pressure to the bottom, energy consumption be reduced accordingly.

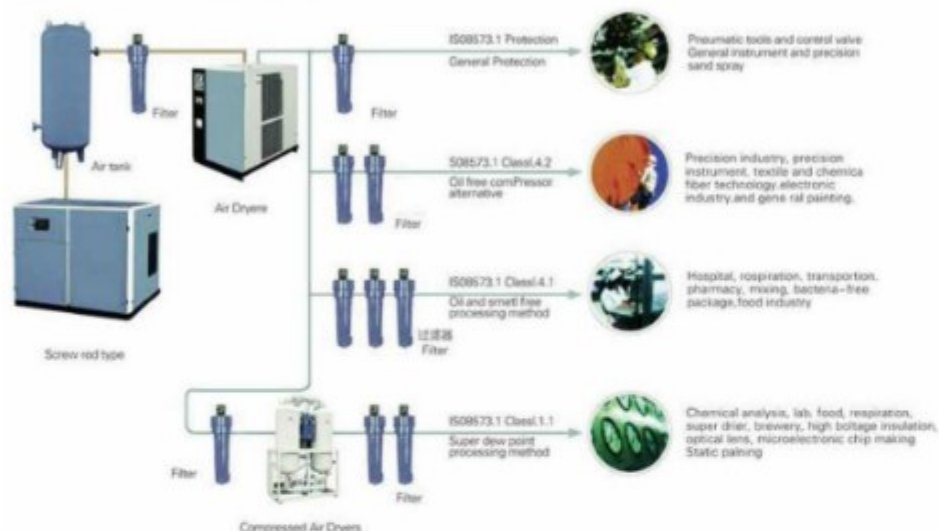


■ The machine put far away form the field, the extra pipes added the pressure drop of the whole system.

■ SLD machine, all built-in, field type, fewer pipes, pressure drop being the lowest.

POST-PROCESSING PROJECT OF SCREW COMPRESSOR

Proper choice of model is more important than other factors.
post-processing equipments



Refrigeration Air Dryer

Air cooled refrigeration dryer

Item	Model	HAD -5	HAD -10	HAD -15	HAD -20	HAD -30	HAD -40	HAD -50	HAD -60	HAD -75	HAD -85	HAD -100	HAD -125	HAD -150	HAD -200
Air capacity(Nm ³ /min)		0.8	0.8	1.7	2.8	3.8	5.2	7.2	8.5	11	13.5	15.2	18.5	22	30
Voltage(V/50Hz)		220	220	220	220	220	220	220	220	220	220	220	380	380	380
Comp.Power(KW)		0.58	0.58	0.75	0.75	0.89	1.23	1.65	1.7	1.9	2.31	2.34	2.8	3	4.5
Fan Power(W)		95	95	95	95	150	150	150	160	180	240	240	240	240	720
Inlet dia		G1"	G1"	G1"	G1-1/2"	G1-1/2"	G1-1/2"	G1-1/2"	G2"	G2"	G2"	G2 1/2"	DN65	DN80	DN100
Weight(kg)		48	48	65	76	82	96	109	127	145	176	198	213	298	420
Size	L(mm)	650	650	700	800	900	1000	1000	1120	1200	1300	1450	1550	1620	1860
	W(mm)	450	450	470	500	500	520	580	580	580	620	700	700	780	850
	H(mm)	610	610	680	820	860	730	790	790	840	870	960	1075	1410	1410

Item	Model	HAD -75W	HAD -85W	HAD -100W	HAD -125W	HAD -150W	HAD -175W	HAD -185W	HAD -200W	HAD -250W	HAD -300W	HAD -350W	HAD -400W	HAD -500W	HAD -600W
Air capacity(Nm ³ /min)		11	13.5	15.2	18.5	22	25.5	28.5	30	35	45	55	65	75	85
Voltage(V/50Hz)		220	220	380	380	380	380	380	380	380	380	380	380	380	380
Comp.Power(KW)		2.7	2.7	2.9	3.1	4.5	5.1	4.95	5.3	6.9	9.2	11.2	13.1	14	16
Water circulation(m ³ /h)		5	5	5	6	7	9	9	9	11	15	20	20	22	25
Water Inlet dia		G1"	G1"	G1"	G1-1/2"	G1-1/2"	G1-1/2"	G1-1/2"	G1-1/2"	G1-1/2"	G1-1/2"	G1-1/2"	DN65	DN80	DN100
Air Inlet dia		G2"	G2"	G2 1/2"	DN65	DN80	DN80	DN100	DN100	DN100	DN100	DN125	DN125	DN150	DN150
Weight(kg)		220	220	235	350	460	550	580	580	650	750	1100	1200	1400	1800
Size	L(mm)	1200	1200	1450	1450	1620	1760	1760	1760	1800	1870	2050	2050	2090	2350
	W(mm)	580	580	700	700	780	800	800	850	1000	1100	1100	1100	1120	1350
	H(mm)	1010	1010	1205	1205	1530	1530	1530	1620	1620	1662	1550	1550	1640	1743

No heat regenerative adsorption dryer

Model	Air Capacity (m ³ /min)	Pipe Dia	Size mm (L*W*H)	Weight kg	Model	Air Capacity (m ³ /min)	Pipe Dia	Size mm (L*W*H)	Weight kg	Model	Air Capacity (m ³ /min)	Pipe Dia	Size mm (L*W*H)	Weight kg
5RW	0.8	G3/4"	650*400*1300	95	10RW	1.5	G2 1/2"	1200*550*2194	890	50RW	75	DN150	2418*1525*2811	2020
10RW	1.35	G3/4"	650*400*1300	112	125RW	18.5	DN65	1350*700*2247	900	60RW	85	DN150	2730*1540*2148	2417
15RW	1.7	G1"	750*400*1400	142	150RW	22	DN65	1450*700*2347	1190	70RW	110	DN150	3050*1200*3076	4573
20RW	2.8	G1"	750*400*1400	156	175RW	25.5	DN65	1450*700*2347	1190	100RW	152	DN150	3120*1200*3376	4823
30RW	3.8	G1"	850*500*1720	240	185RW	28.5	DN100	1450*700*2450	1300	120RW	170	DN200	3620*1360*3359	6475
40RW	5.2	G1-1/2"	900*500*1720	405	200RW	30	DN100	1500*900*2873	1560	150RW	220	DN200	4024*1570*3430	7714
50RW	7.2	G1-1/2"	1000*500*1920	518	250RW	38	DN100	1600*900*2876	1760	170RW	260	DN250	4500*1800*3580	8080
60RW	8.5	G2"	1000*550*1950	656	300RW	45	DN100	1800*950*2876	2080	200RW	300	DN200	5200*1670*3690	8214
75RW	11	G2"	1100*550*2150	765	350RW	55	DN125	2250*920*2930	2300	2500RW	380	DN400	5980*1800*3860	9900
85RW	13.5	G2"	1200*550*2250	795	400RW	65	DN125	2418*920*2930	2400					



Adsorption Air Dryer



Micro Heat Regeneration Adsorption Air Dryer



Filter

No heat regenerative adsorption dryer

Model HAD-	Air Capacity (m ³ /min)	Pipe Dia	Size mm (L*W*H)	Weight kg
15RH	1.7	G1"	760*480*1400	170
20RH	2.6	G1"	760*480*1600	245
30RH	3.8	G1.5"	850*580*1700	290
45RH	5.2	G1.5"	900*580*1700	365
60RH	7.2	G2"	1000*680*1800	545
80RH	9.5	G2"	1100*680*1900	585
100RH	11	G2"	1100*680*2100	760
125RH	13.5	G2.5"	1200*680*2200	890
150RH	16.2	DN80	1200*680*2100	890
175RH	18.5	DN80	1250*700*2200	980

Model HAD-	Air Capacity (m ³ /min)	Pipe Dia	Size mm (L*W*H)	Weight kg
15RH	22	DN80	1450*1000*2300	1200
175RH	25.2	DN80	1450*1000*2500	1360
190RH	35.5	DN100	1450*1000*2700	1450
200RH	38	DN100	1500*1000*2800	1520
220RH	35	DN100	1600*1000*2670	1700
300RH	45	DN100	1800*1000*2670	2180
350RH	55	DN125	2250*1000*2500	2330
400RH	65	DN125	2400*1000*2500	2470
500RH	75	DN150	2400*1000*3000	2650
600RH	85	DN150	2700*1000*3100	2850

Filter

Model	Air Capacity (m ³ /min)	Inlet dia	Size	Element pc	Weight kg
015"	1.5	G1"	267*90	1	1.5
024"	2.4	G1-1/2"	385*110	1	2.5
035"	3.5	G1-1/2"	385*110	1	2.5
070"	7	G1-1/2"	515*110	1	3
090"	9	G2"	628*110	1	4.5
120"	12	G2"	800*150	1	5
150"	15	G2"-1/2"	950*150	1	11
180"	18	G2"-1/2"	1000*150	1	16
240"	24	DN80	1289*375	1	21
300"	30	DN100	1615*475	2	35
360"	36	DN100	1480*475	2	35
450"	45	DN100	1635*475	3	58
550"	55	DN125	1610*475	3	68
650"	65	DN125	1610*565	4	78
750"	75	DN150	1700*590	5	86
900"	90	DN150	1890*590	6	95
1200"	120	DN150	1900*660	8	170
1500"	150	DN150	1932*700	10	245
1800"	180	DN200	1963*750	10	270
2100"	210	DN200	2078*860	14	298
2400"	240	DN250	2100*860	16	350
3000"	300	DN300	2166*960	20	390
3600"	360	DN300	2277*960	24	420
3900"	390	DN400	2310*1010	26	500
4500"	450	DN400	2310*1210	30	650



Electronic Drain Valve



Ball Drain Valve

SUPPLIED SERVICE

Pre-sale service:

choice of models: Upon the demand of the users, in considering their scale of production, air consumption and ambient, we supply service of inquiry, technology advisory and documents. Field service: According to specific working condition, supply the service of project design and accessories configuration and so on.

After-sale service:

Supply guidance of installation and trial run, periodical maintenance, emergency help, operation instruction and experience of relevant equipments

Maintenance service:

items of maintenance, repair and training.

All customers can have our following commitments:

1. After the arrival of the machine at the customer's place, our company will dispatch service man to the spot for technology guidance.
2. After all equipment installed, our company will dispatch service staff to the spot for trial run, meantime to train the operation workers in daily operation, daily maintenance and simple trouble.
3. Technical consultation: Answer technical questions within one hour.
4. Troubleshooting: After receiving customers complaint for machine trouble, if it needs to go to the spot, company will send people to.
5. Supply of parts: Supply all needed parts for normal working and maintenance at ex-works price.

Quality parts

To use the original parts and serve from UNICAL can assure the normal operation and service life in most extend.

