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# Double Stage Screw Compressor





## Technical Parameters

Double Stage Screw Air Compressor									
Model	Working Pressure		F.A.D (Air Delivery)		Motor Power		Dimension	N.W	Connection
	Bar	Psi	mg/min	cfm	KW	HP	L×W×H(mm)	KG	
KP-LR-15S	8	116	2.9	102	15	20	1150*800*1180	500	DN20
	10	145	2.6	92					
	13	189	2.2	78					
KP-LR-18.5S	8	116	3.3	117	18.5	25	1150*800*1180	700	DN25
	10	145	3	106					
	13	189	2.6	92					
KP-LR-22S	8	116	4.1	145	22	30	1650*880*1280	800	G1-1/2
	10	145	3.5	124					
	13	189	3.2	113					
KP-LR-30S	8	116	6.4	226	30	40	1650*880*1280	1080	G1-1/2
	10	145	4.9	173					
	13	189	4.2	148					
KP-LR-37S	8	116	7.1	251	37	50	2000*1260*1560	1380	G1-1/2
	10	145	6.3	223					
	13	189	5.4	191					
KP-LR-45S	8	116	9.7	343	45	60	2000*1260*1560	1980	G2"
	10	145	7.8	276					
	13	189	6.5	230					
KP-LR-55S	8	116	12.5	442	55	75	2100*1360*1660	2380	G2"
	10	145	9.6	339					
	13	189	8.6	304					
KP-LR-75S	8	116	16.5	583	75	100	2100*1360*1660	3200	G2"
	10	145	12.5	442					
	13	189	11.2	396					
KP-LR-90S	8	116	20	706	90	125	2550*1730*1918	3400	DN65
	10	145	16.9	597					
	13	189	14	495					
KP-LR-110S	8	116	23.5	830	110	150	2550*1730*1918	4500	DN80
	10	145	20	706					
	13	189	17	600					
KP-LR-132S	8	116	28	989	132	180	2855*1730*1918	4800	DN80
	10	145	23.5	830					
	13	189	19.5	689					
KP-LR-160S	8	116	33	1166	160	220	2855*1730*1918	6200	DN80
	10	145	28	989					
	13	189	23	812					
KP-LR-185S	8	116	38	1342	185	250	3200*1730*1918	6300	DN80
	10	145	32.5	1148					
	13	189	27.5	971					
KP-LR-200S	8	116	43	1519	200	280	3200*1730*1918	6500	DN100
	10	145	38.5	1360					
	13	189	33	1166					
KP-LR-220S	8	116	47	1660	220	300	4000*1730*1918	6850	DN125
	10	145	41.5	1466					
	13	189	38	1342					
KP-LR-250S	8	116	54	1907	250	340	4000*2120*2200	8100	DN125
	10	145	45	1590					
	13	189	40	1413					
KP-LR-280S	8	116	59	2084	280	380	4350*2050*2120	8500	DN125
	10	145	53.5	1890					
	13	189	43.5	1537					
KP-LR-315S	8	116	68	2403	315	420	4350*2050*2120	8600	DN125
	10	145	62	2191					
	13	189	55	1943					
KP-LR-355S	8	116	74	2615	355	480	4550*2150*2220	8800	DN125
	10	145	68	2403					
	13	189	62	2191					

- According to the standard of GB19153-2009      ●Compressor Stage: Single Stage Compression
- Standard Power Supply: 380V/50Hz/3ph      ●Exhaust Temperature: Ambient Temperature +15°C
- Configured normal temperature type Air dryer,with Dew Point range: 3-10°C;
- Please contact us for any specification that is not within the above mentioned standard.



## High Efficiency Motor

Four stage motor has the characteristics of low speed and high reliability. Motor is equipped with heavy SKF imported bearings. At both ends of the bearing shell, the addition of grease filling mouth, easy maintenance, fully embodies the humanized design. IP 55 protection grade, can effectively prevent dust and moisture into the motor, extend the life of the motor.

## Layout structure

Won the national patent reasonable layout, the mechanical and electrical integration, separated hot and cold room, the more better heat radiation effect for the whole machine, which ensure that all the parts worked in the cold room, the biggest guarantee for life extension.

With more lower noise, the machine designed by fully enclosed with removable chassis. And inner equipped with high quality insulation flame retardant sponge, which the installation is convenient, not only meets the requirements of environmental protection, and convenient cleaning.

## Fuel Cut and Combined of Exhaust Valve

For which solved the problem of oil spill and failure start in low temperature environment.

To ensure that large machine loading start, reduce the impact on the grid, extend the life of the motor.

## Oil Separator-Sinking Mounting Structure

The rear cooler and the gas water separator are assembled together, which omitted the connecting pipeline, saved the space. And avoided the leakage also reduced the installation cost.

The more shorter way between the cooler and the gas water separator, the more reasonable of air flow charge, so improved

## Cooling Design for interstage oil spray

The lubricating oil three dimensional injection is closed to atomization. High cooling efficiency, even lubrication, greatly reduce power consumption. Save the intercooler, reduce pressure lossing, reduce maintenance costs.





## Energy Saving Air Intake Control System

Intake air control system is equipped with a check valve, when the air compressor stops or suddenly stopped no gas supply, the check valve will automatically closed, to prevent air backflow, avoid spit oil phenomenon.

## New type Temperature Control Oil Filtering Combined Valve

Patent designed of combination of temperature control valve and oil filter, make the two valve integrated together which more less of connecting pipe,so well to reduce leakage, to reduce the failure rate, more energy saving. Based that it solved the issue of hard tube cracked and oil leakage when installed the original oil filter base and the temperature control valve.

## Electromagnetic Valve

Using Germany produced Electromagnetic Valve Solenoid valve role:Using direct acting solenoid valve, the valve will immediately open responsively when there have current, more sensitive than the traditional pilot solenoid valve, the linkage control system more accurate, timely, safe.

## Electrical components

French Schneider Inc professional production

## Wearing parts

**Air filter element:** Professional surface nano coating, it no need to change the direction of air flow, directly through the filter media, reducing pressure loss, more energy saving than traditional air filter, filtration accuracy is higher,more

**Oil Filter:** Durable filter, precision filter, make the machine more stable.

**Oil Separator:** Special simplified design.The combined function of the separating core and the oil return device ensures that the oil content is 2ppm.





## Efficiency Motor

The air end is designed with large rotor and low speed, which contains two independent compression units.

For the rotor was designed as UV patented line than ensuring the accuracy, reliability and effectiveness of the rotor profile.

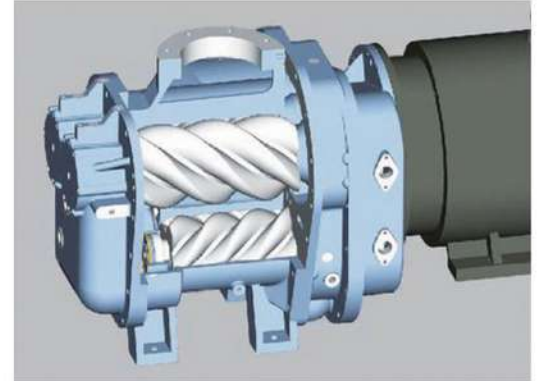
2pcs air end in the same shell, so through the direct rotation of the helical gear, the best linear speed can be obtained for each stage of the rotor.

The compression ratio of each stage is accurate, the load of the bearing and the gear is reduced, and the service life of the machine is prolonged.

Patented oil lubrication system, the compressor cavity using the general cleanliness of lubricating oil, bearing parts of the high degree of cleanliness of lubricating oil which to ensure high reliability of bearings.

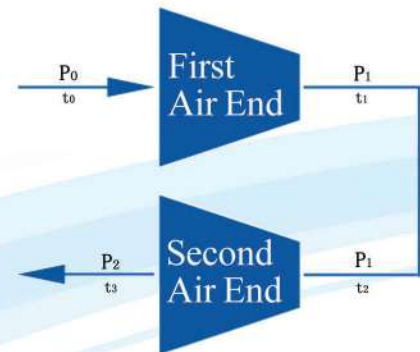
Each compression ratio is small, the leakage is smaller, the air delivery efficiency is high.

Under the same power, the two bears of air end together charged the load, so the bearing force is small, the life is longer.



## The process of Double stage compressed

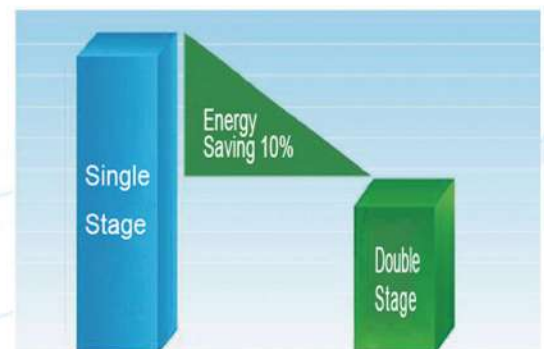
The air through the air filter into the first stage air end mixed with the inner a spot of lubrication oil compressed air go through the interstage pressure, then entry the cooling channel mixed with a large amount of oil, thus greatly reducing the temperature. The cooled compressed air into the second air end with two times compression, finally getting the exhaust pressure.



## Energy Saving Case for Double stage screw air compressor

For the single stage of 250KW screw air compressor need to pay for Electricity fees with RMB 200 for one hour when it running at the full load condition. If it runs 8000h in a year then need to pay for the electricity fees with RMB 1.6 million.

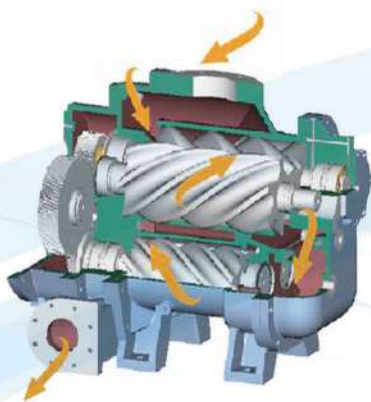
Compared with that, using double stage screw air compressor can reduce above 10% power consumption, it's mean double stage compressor can save electricity fees with RMB 160000.00 in a year for your factory.



## Energy Saving-- Two stage Screw Air Compressor Life Value



## Energy Saving Analysis of Two Stage Screw Compressor



\*The first time compressed air goes through fuel injection cooling, after lowering the two-stage suction temperature, do the second same pressure compression.

\*Two-stage compressor using the same pressure ratio to set the air end space pressure. So each stage compression ratio is less than single-stage compression ratio. The amount of backflow leakage between the rotors is greatly reduced, and the volumetric efficiency and the adiabatic efficiency are greatly improved.

\*Under the same power, the two-stage compressor compressed air is more 15% higher than single-stage compressor, and can achieve up to 15% energy saving, and can achieve up to 15% energy saving.