



SOLLANT FOCUS ON ENERGY SAVING

AIR COMPRESSION SYSTEM SERVICE PROVIDER
AIR COMPRESSION SYSTEM INTEGRATOR
GAS COMPRESSION SOLUTION PROVIDER



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WELCOME TO SOLLANT GROUP

PROCESSING EQUIPMENT



Germany Leitz Coordinate Measuring Machine



CBN Disks



Ceramically Bonded Disk



Germany Kapp Rotor Grinder

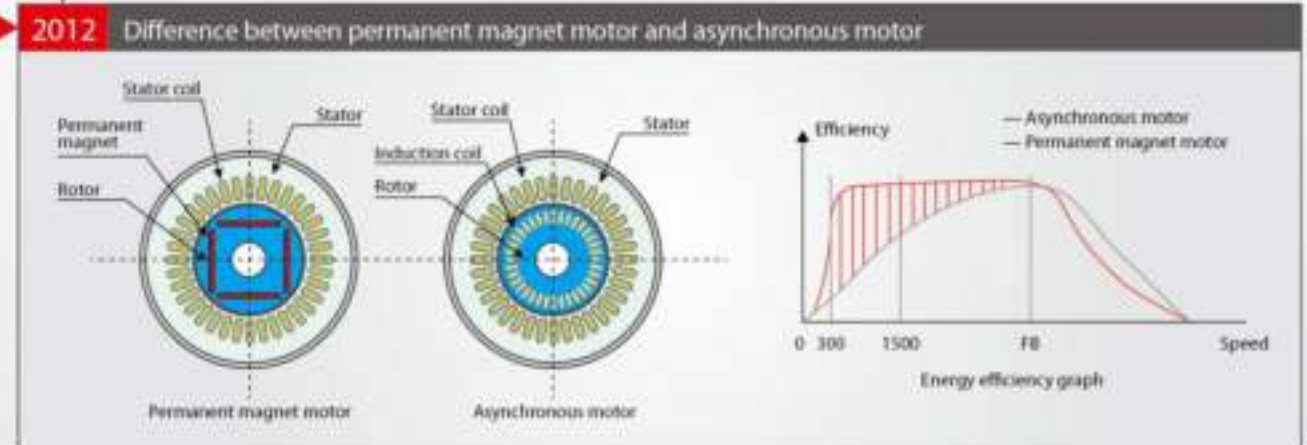
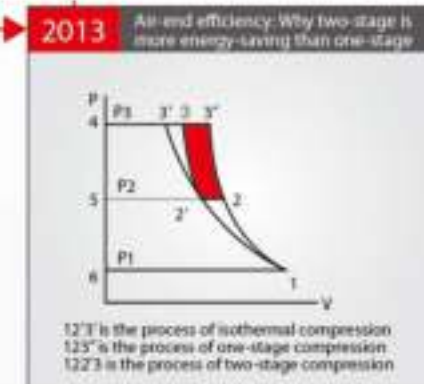
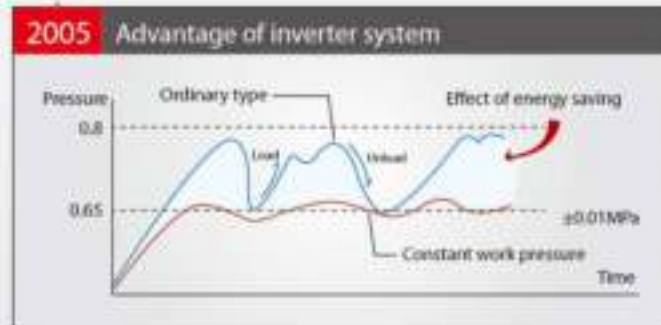
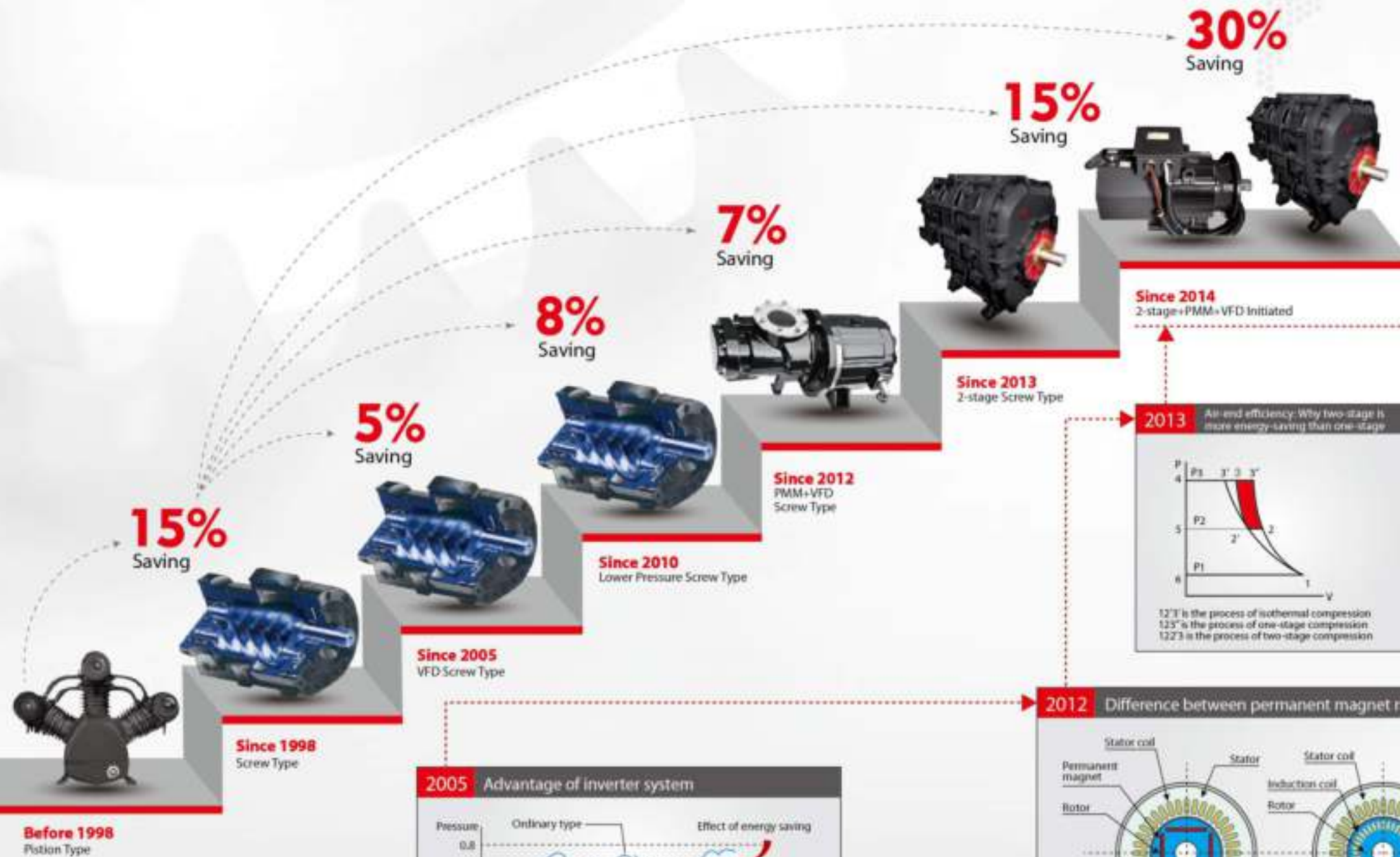


Japan Mitsui Seiki Processing Center



Constant Temperature Processing and Grinder

DEVELOPMENT OF AIR COMPRESSOR



ANALYSIS OF COMPRESSORS' LIFE-CYCLE (10 YEARS) COST

The pie chart shows the following cost breakdown:

- 90% Energy Consumption of Electricity
- 5% Maintenance Fee
- 5% Purchase Expense

Suppose a 75kw normal air compressor running for 10 years

- * Purchase cost: USD10,000
- * 10-year year maintenance cost: $\text{USD}1000 \times 2 \times 10 = \text{USD}20,000$
- * 10-year electricity cost: $75 \times 8000 \times 10 \times \text{USD}0.1 = \text{USD}600,000$
- * 10-year total cost: $10,000 + 20,000 + \text{USD}600,000 = \text{USD}630,000$
- ** Purchase cost covers 5% of total cost
- ** Maintenance cost covers 5% of total cost
- ** Electricity cost covers 90% of total cost

What is the most important issue to be considered before you selecting an air compressor ?
It must be energy-saving !

SCREW AIR COMPRESOR WITH TWO-STAGE COMPRESSION AIR-END

FEATURES AND ADVANTAGES



01 Feature:
Two-stage compression air-end

Advantage:
Low compression ratio
Low temperature rising
Low air leakage

Benefit:
15% energy-saving



02 Feature:
IE4 Permanent magnet motor /
High-efficiency motor

Advantage:
Motor efficiency **97%**

Benefit:
5% energy-saving



03 Feature:
2-VFD System

Advantage:
Constant pressure output to remove
pressure fluctuation and off-load
Constant temperature output at 80~85 °C
Low starting current to protect components

Benefit:
15% energy-saving

04 Feature:
Customized pressure system

Advantage:
Avoid excess pressure waste

Benefit:
7% energy-saving

05 Feature:
Seamless piping system

Advantage:
Smooth, rust-free, good
appearance

Benefit:
No pressure loss



06 Feature:
Large oil system

Advantage:
Reduce internal pressure loss
Avoid oil leakage for safety

Benefit:
3% energy-saving



07 Feature:
Large cooler system

Advantage:
Centrifugal fan used for
good cooling effect

Benefit:
Allow ambient temperature at **52°C**



08 Feature:
Intelligent control system

Advantage:
10 inch monitor to show all the data

Benefit:
Simple operation and trouble free



09 Feature:
Double filtering system

Advantage:
Remove impurity from air and ensure air cleanness

Benefit:
Longer life of air-end and lubrication oil

10 Feature:
Air routing system

Advantage:
Cold air side suction and hot air top discharge

Benefit:
2% energy-saving

TWO-STAGE COMPRESSION

SETTING THE STANDARD FOR ENERGY EFFICIENCY

Compared to single stage compressors, a two-stage is much closer to isothermal compression. This is achieved by injection of fresh oil between the stages which reduces the inlet temperature to the second stage. This lower inlet temperature increases efficiency by reducing the compression ratio between the stages. In addition, leakage between the rotor seals is significantly reduced resulting in outstanding volumetric efficiency.

- Two-stage air compressors are closer to the ideal isothermal compression
- Reduced leakage increases volumetric efficiency
- Saves 10-15% of energy compared to single stage compressors
- Increases flow 10-15% compared to single stage compressors
- Lower pressure differential increases efficiency and reliability
- Low heat load
- Easy maintenance and service
- Lowest life-cycle cost of any compressor on the market



■ Pm+VSD+2-stage VS normal type

Comparison point	PM+VSD+2-stage	Normal type	Result
Air end efficiency	2-pair screw compressing	1-pair screw compressing	2-stage air end equal temperature and equal ratio compressing, 12-17% higher efficiency than 1-stage air end
No-load power cost	No	45% of full load power cost	If no-load rate is 30%, PM+VSD can save 13.5% power cost
Excess pressure power cost	No	7% more power cost when 1 bar pressure higher	VSD can save 7% power cost
Motor efficiency	94-96%	87-89%	PM can save 5% power cost
Other advantages	Constant pressure output	Pressure is fluctuating	Constant pressure output secures production quality

Total saving: PM+VSD+2-stage type can save 40% more than normal type in average

Two-stage Pm Vsd Air Compressor Series compressor

Model	Working pressure	Capacity m ³ /min	Power		Noise dB	Air outlet pipe diameter	Net weight kg	Dimensions(mm)		
	bar		kW	hp				Length	Width	Height
SLTT-22V	8	1.85-4.1	22	30	65±3	G2	1500	1860	1180	1430
	10	1.65-3.4	22	30	65±3	G2	1500	1860	1180	1430
	13	/	22	30	65±3	G2	1500	1860	1180	1430
SLTT-37V	8	2.3-7.7	37	50	65±3	G2	1800	1860	1180	1430
	10	1.9-6.9	37	50	65±3	G2	1800	1860	1180	1430
	13	/	37	50	65±3	G2	1800	1860	1180	1430
SLTT-45V	8	3.2-10.5	45	60	65±3	G2	2000	1860	1180	1430
	10	2.2-7.8	45	60	65±3	G2	2000	1860	1180	1430
	13	2.5-6.1	45	60	65±3	G2	2000	1860	1180	1430
SLTT-55V	8	3.9-13.2	55	75	65±3	G2	2450	2160	1350	1750
	10	3.1-10.7	55	75	65±3	G2	2450	2160	1350	1750
	13	2.6-8.8	55	75	65±3	G2	2450	2160	1350	1750
SLTT-75V	8	5.0-16.8	75	100	68±3	G2	2550	2160	1350	1750
	10	4.1-13.8	75	100	68±3	G2	2550	2160	1350	1750
	13	3.6-12.3	75	100	68±3	G2	2550	2160	1350	1750
SLTT-90V	8	6.0-20.1	90	120	70±3	DN65	3250	2420	1530	1720
	10	5.2-17.3	90	120	70±3	DN65	3250	2420	1530	1720
	13	4.8-15.9	90	120	70±3	DN65	3250	2420	1530	1720
SLTT-110V	8	7.1-23.5	110	150	72±3	DN80	3600	2650	1600	1850
	10	5.9-19.8	110	150	72±3	DN80	3600	2650	1600	1850
	13	5.3-17.8	110	150	72±3	DN80	3600	2650	1600	1850
SLTT-132V	8	8.0-28.1	132	175	74±3	DN80	3700	2650	1600	1850
	10	7.3-24.3	132	175	74±3	DN80	3700	2650	1600	1850
	13	6.1-20.2	132	175	74±3	DN80	3700	2650	1600	1850
SLTT-160V	8	10.1-33.6	160	215	75±3	DN100	4250	3350	1900	1950
	10	9.2-30.5	160	215	75±3	DN100	4250	3350	1900	1950
	13	8.4-28.0	160	215	75±3	DN100	4250	3350	1900	1950
SLTT-185V	8	12.4-38.7	185	250	76±3	DN100	4650	3350	1900	1950
	10	10.4-34.8	185	250	76±3	DN100	4650	3350	1900	1950
	13	9.7-32.3	185	250	76±3	DN100	4650	3350	1900	1950
SLTT-200V	8	12.8-42.6	200	270	76±3	DN100	5550	3350	1900	1950
	10	12.2-40.5	200	270	76±3	DN100	5550	3350	1900	1950
	13	10.6-35.1	200	270	76±3	DN100	5550	3350	1900	1950
SLTT-220V	8	14.2-47.3	220	300	78±3	DN100	5650	3700	2060	2150
	10	12.8-42.5	220	300	78±3	DN100	5650	3700	2060	2150
	13	12.0-37.4	220	300	78±3	DN100	5650	3700	2060	2150
SLTT-250V	8	18.5-52.8	250	350	78±3	DN100	6450	3700	2060	2150
	10	15.1-48.3	250	350	78±3	DN100	6450	3700	2060	2150
	13	13.3-43.0	250	350	78±3	DN100	6450	3700	2060	2150